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BULLETIN No. 3.

U. S. DEPARTMENT OF AGRICULTURE.

SECTION OF FOREIGN MARKETS.

[Under the immediate supervision of the Secretary of Agriculture.]

THE WORLD'S MARKETS

FOR

AMERICAN PRODUCTS.

FRANCE.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1895.

VALUES OF FOREIGN COINS.

The following table is an estimate of the values of the standard coins of the principal nations, prepared by the Director of the Mint, under the provisions of the act of August 28, 1894, section 25, and contained in Circular No. 119 of the United States Treasury Department of July 1, 1895, and proclaimed by the Secretary of the Department to be the values of such coins in terms of the money of account of the United States, to be followed in estimating the value of all foreign merchandise exported to the United States on or after July 1, 1895, expressed in any of such metallic currencies:

Country.	Standard.	Monetary unit.	U. S. gold value.	Coins.
Argentine Republic.	Gold and silver.	Peso	$0.96,5	Gold: argentine ($4.82,4) and ½ argentine. Silver: peso and divisions.
Austria-Hungary	Gold	Crown	.20,3	Gold: former system—4 florins ($1.92,9), 8 florins ($3.85,8), ducat ($2.28,7), and 4 ducats ($9.15,8). Silver: 1 and 2 florins. Gold: present system—20 crowns ($4.05,2), 10 crowns ($2.02,6).
Belgium	Gold and silver.	Franc	.19,3	Gold: 10 and 20 francs. Silver: 5 francs.
Brazil	Gold	Milreis	.54,6	Gold: 5, 10, and 20 milreis. Silver: ½, 1, and 2 milreis.
British Possessions N. A. (except Newfoundland).	Gold	Dollar	1.00	
Central American States.	Silver	Peso	.48,6	Silver: peso and divisions.
Chile	Gold and silver.	Peso	.91,2	Gold: escudo ($1.82,4), doubloon ($4.561,1), and condor ($9.12,3). Silver: peso and divisions.
China	Silver	Tael (Shanghai)	.71,8	
		Tael (Haikwan (Customs))	.80,0	
		Tael (Tientsin)	.76,1	
		Tael (Chefoo)	.75,1	
Cuba	Gold and silver.	Peso	.92,6	Gold: doubloon ($5.01,7). Silver: peso.
Denmark	Gold	Crown	.26,8	Gold: 10 and 20 crowns
Egypt	Gold	Pound (100 piasters).	4.94,3	Gold: pound (100 piasters), 5, 10, 20, and 50 piasters. Silver: 1, 2, 5, 10, and 20 piasters.
France	Gold and silver.	Franc	.19,3	Gold: 5, 10, 20, 50, and 100 francs. Silver: 5 francs.
German Empire	Gold	Mark	.23,8	Gold: 5, 10, and 20 marks.
Great Britain	Gold	Pound sterling	4.86,6½	Gold: sovereign (pound sterling) and ½ sovereign.
Greece	Gold and silver.	Drachma	.19,3	Gold: 5, 10, 20, 50, and 100 drachmas. Silver: 5 drachmas.
India	Silver	Rupee	.23,1	Gold: mohur ($7.10,5). Silver: rupee and divisions.
Italy	Gold and silver.	Lira	.19,3	Gold: 5, 10, 20, 50, and 100 lire. Silver: 5 lire.
Japan	Gold and silver.*	Yen (Gold)	.99,7	Gold: 1, 2, 5, 10, and 20 yen.
		Yen (Silver)	.52,4	Silver: yen.
Mexico	Silver	Dollar	.52,8	Gold: dollar ($0.98,3), 2½, 5, 10, and 20 dollars. Silver: dollar (or peso) and divisions.
Newfoundland	Gold	Dollar	1.01,4	Gold: 2 dollars ($2.02,7).
Norway	Gold	Crown	.26,8	Gold: 10 and 20 crowns.
Portugal	Gold	Milreis	1.08	Gold: 1, 2, 5, and 10 milreis.
Russia	Silver*	Ruble (Gold)	.77,2	Gold: imperial ($7.71,8) and ½ imperial ($3.86)†.
		Ruble (Silver)	.38,9	Silver: ¼, ½, and 1 ruble.
Spain	Gold and silver.	Peseta	.19,3	Gold: 25 pesetas. Silver: 5 pesetas.
Sweden	Gold	Crown	.26,8	Gold: 10 and 20 crowns.
Switzerland	Gold and silver.	Franc	.19,3	Gold: 5, 10, 20, 50, and 100 francs. Silver: 5 francs.
Turkey	Gold	Piaster	.04,4	Gold: 25, 50, 100, 250, and 500 piasters.

* Gold the nominal standard. Silver practically the standard. † Coined since July 1, 1886. Old half-imperial = $3.98,6. ‡ Silver the nominal standard. Paper the actual currency, the depreciation of which is measured by the gold standard.

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NOTE.—The consular reports in this bulletin were received in answer to the circular of inquiry sent out by the Department of Agriculture through the Secretary of State, and which is printed in Bulletin No. 1 of this series. The publications of this section heretofore consist of Bulletin No. 1—Great Britain and Ireland; Bulletin No. 2—the German Empire, and Circular No. 1—Peaches and other fruits in England.

In press: Bulletins 4 and 5, on Canada and Netherlands.

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THE WORLD'S MARKETS FOR AMERICAN PRODUCTS.

FRANCE.

The statements in this bulletin regarding the area, population, agriculture, commerce, etc., of France are compiled in part from official sources and in part from nonofficial statistical publications of recognized authority.

Among the great powers of Europe, considered without reference to their foreign possessions, France ranks fourth in area, fourth in population, and second in wealth, and stands highest in national indebtedness per capita of population.

AREA AND POPULATION.

France is divided into eighty-seven departments, ten of which are each from 3,000 to 4,000, sixty-one from 2,000 to 3,000, fourteen from 1,000 to 2,000, and two under 1,000 square miles in extent. The following table shows the area, population, number of inhabitants per square mile, and annual increase per 1,000 of the population at the different enumerations taken during the present century:

Years.	Area in square miles.	Population.	Inhabitants per square mile.	Annual increase per 1,000 inhabitants.
1801	204,765	27,349,003	134	.....
1821	204,765	30,461,875	149	5.7
1841	204,765	34,230,178	167	6.2
1861	209,625	37,446,313	178	3.7
1866	209,625	38,192,064	182	4.0
1872	204,092	36,102,921	177	(a)
1876	204,092	36,905,788	181	5.4
1881	204,092	37,672,048	184	4.1
1886	204,092	38,218,903	187	2.9
1891	204,092	38,343,192	188	0.6

a Decrease of 1.7 per 1,000.

The area of France is about equal to the combined area of the six New England States with New York, Pennsylvania, Maryland, and Virginia, or to that of Indiana, Illinois, Wisconsin, and Iowa. It was increased in 1860 by the annexation of Savoy and Nice, and reduced in 1871 by the loss of Alsace and Lorraine.

The population of France increases very slowly; in fact, at the census of 1891 no fewer than fifty-five departments showed an actual decrease

as compared with 1886, and the increase in the entire country was only 124,289, or but little more than three-tenths of 1 per cent in a period of five years.

Of the population in 1891, 17,435,888 were employed in agriculture, 9,532,560 in manufactures, 3,961,496 in commerce, 1,415,235 in the civil and military service, 1,199,333 in transportation, and 1,114,873 in the different professions, while 2,169,750 were reported as persons of private fortune and employees of such persons, and the remainder were unclassified.

WEALTH AND DEBT.

In his estimate of the wealth of France in 1888, Mr. M. G. Mulhall adopted, with but slight modifications, the estimate made by M. Ives Guyot in 1885, the decrease in the value of land having partially offset the increase in the values of other descriptions of property. Mr. Mulhall estimated the total wealth of the country in the year stated (1888) at the equivalent of $42,990,000,000—an average of $1,120 per capita, as compared with an average of $1,050 in the United States and a general average for the whole of Europe of $650. The total amount was made up as follows: Lands, $13,440,000,000; houses, $8,520,000,000; furniture, $4,260,000,000; railways, $2,850,000,000; cattle, $2,705,000,000; bullion, $1,640,000,000; merchandise, $775,000,000; shipping, $75,000,000, and sundries, $8,725,000,000.

According to the Eleventh United States Census Report on Wealth, Debt, and Taxation (part 1, Public Debt) the total national indebtedness and the debt per capita in France and in the United States in the years 1880 and 1890 were as follows:

Countries.	Population.		Debt less sinking fund.		Debt per capita.	
	1890.	1880.	1890.	1880.	1890.	1880.
France	38, 218, 903	37, 672, 048	*a* $4, 446, 793, 398	$4, 274, 782, 478	$116. 35	$113. 47
United States	62, 622, 250	50, 155, 783	891, 960, 104	1, 922, 517, 364	14. 24	38. 33

a Inclusive of floating debt, but exclusive of annuities, whose capitalized value is estimated by good authority to be not less than $2,000,000,000.

M. Poincaré, a member of the present French cabinet, estimated the total national debt of France, capitalized, on January 1, 1893, at 30,611,685,122 francs, the equivalent of $5,908,055,228. This amounts to no less than $154.08 per capita, on the basis of the last enumeration of population. On $2,893,370,707 of the bonded debt the rate of interest is 3 per cent per annum, and on the remainder 4½ per cent.

AGRICULTURE.

The agricultural interests of France are of great magnitude and importance. In 1889 they were officially declared to represent a total value of more than 100,000,000,000 francs ($19,300,000,000), or over 20 per cent in excess of the total value of the farms of the United States, with their live stock and machinery. The total value of the agricultural products of France, in their raw state, for the year 1889 was declared to be 13,500,000,000 francs ($2,605,500,000), or over $145,000,000 greater than that of the agricultural products of the United States for the same year.

That these comparisons are favorable to France is due in varying measure (1) to the small amount of unproductive land in that country; (2) to the almost uniformly higher average yield per acre obtained there; (3) to the higher average prices received for nearly all agricul-

tural products, as compared with the United States, and (4) to the fact that in the United States farms of less than three acres are not taken into account unless $500 worth or upward of produce has been sold from them during the census year, while in France all agricultural holdings of whatever size are included in the statistical returns.

The following table shows the percentage of the total area of France and that of the total cultivable area under crop in 1889:

Crops, etc.	Per cent of total area of France.	Per cent of total area cultivable.
Cereals	29.14	31.95
Meadows, etc	19.82	21.74
Fruits, nuts, etc	6.30	6.91
Potatoes	2.82	3.09
Industrial plants	.97	1.07
In fallow	6.89	7.56
Forests	17.89	19.62
Uncultivated	16.17	8.06
Total	100.00	100.00

The significance of the foregoing figures will be better appreciated when it is stated that the total area in farms in Pennsylvania in 1890, was less than 64 per cent, and that of the improved land in farms less than 46 per cent of the total area of the State. In the State of New York the percentages were 72 and 54, respectively.

The number of persons farming their own land in France in 1891 was 65.1 per cent of the total number of farmers, as compared with 71.6 per cent in the United States in 1890.

The following tables show the total areas under the different cereals in each of the years from 1889 to 1893, inclusive, and also in 1878, together with the total production of the same in each of the years mentioned:

Years.	Wheat.	Oats.	Rye.	Barley.	Buckwheat.	Indian corn.	Meslin. (a)
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
1878	17,186,695	8.185.363	4,473,622	2.478,734	1,594.771	b 1.648.058	1,080.390
1889	17,393,290	9,275.020	3.952,355	2,158,171	1,459,894	1,379,685	740,262
1890	17,449,557	9,342,176	3,925,510	2.168,369	1,499.032	1.350,641	733.768
1891	14,231,969	10,483,722	3,702,966	3,022.428	1,541,800	1,377,872	669,369
1892	17,263,945	9,421,557	3,809,877	2,263,713	1,492,620	1,381,042	681,961
1893	17,477,507	9,494,798	3,780,934	2,161,226	1,443.277	1.402.218	676,671

a Rye and wheat mixed. *b* Including millet.

Years.	Wheat.	Oats.	Rye.	Barley.	Buckwheat.	Indian corn.	Meslin.
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
1878	273,685,660	220,961,997	71,169,539	46,024.537	32.761,346	a 32,662,602	17.768.210
1889	307,379,014	241.940,914	65,626,937	44,851,352	26,489,362	25,966,513	12.940.945
1890	331,772,193	265,708,885	68,588,109	48,687,185	27,172,439	23,816,856	13,524.629
1891	219,257.240	301,208,155	61,262,861	72,135,602	29.236,991	26,532,620	10,494,592
1892	310,835,719	238.342,265	66.850,803	46,108,414	27,724,391	26,604,524	11,625,836
1893	277,504,585	177,530,837	63.892.714	34,736.283	24,740,348	26,068,486	10,497,719

a Including millet.

The areas under the different cereals in the United States in 1889, according to the returns of the Eleventh Census, were as follows: Wheat, 33,579,514 acres; oats, 28,320,677 acres; rye, 2,171,604 acres; barley, 3,220,834 acres; buckwheat, 837,164 acres; Indian corn, 72,087,752 acres; a total of 140,217,545 acres, as compared with a total of 36,358,677 acres in France.

The following table shows the production and values of other principal and special agricultural products of France for the year 1893. The values are given for the purpose of illustrating the possibilities attending a highly diversified system of agriculture in a country less than one-third larger than the State of California:

Products.	Acreage.	Production.		Value.
		Unit.	Quantity.	
Potatoes	3,778,920	Bushels	435,099,853	$121,679,577
Sugar beets	640,088	Tons	5,951,368	30,247,768
Other beets	970,423	do	7,619,873	36,296,228
Vineyards	4,500,074	Gals. of wine	1,339,410,875	227,522,672
Clover	2,637,118	Tons	1,943,156	43,055,325
Alfalfa	1,924,504	do	2,122,168	51,181,153
Sainfoin	1,546,438	do	1,118,368	25,572,724
Meadows and permanent pastures	12,987,529	do	7,291,321	180,618,597
Hemp, fiber	101,897	do	26,542	4,205,049
Hemp, seed		Pounds	26,109,976	731,574
Flax, fiber	73,018	Tons	17,660	2,983,947
Flax, seed		Pounds	29,504,209	712,899
Tobacco	35,115	do	43,369,726	3,329,124
Colza	145,959	Bushels	2,153,423	2,986,179
Rapeseed	22,659	do	163,812	244,590
Poppies	29,190	do	336,248	692,797
Aftermath		Tons	1,366,080	28,657,889
Sesame	3,044	Bushels	41,178	34,419
Hops	6,924	Pounds	5,945,199	1,313,753
Chestnuts		do	1,008,677,143	7,092,460
Walnuts		do	297,585,560	5,001,780
Olives		do	259,804,987	5,174,435
Cider apples		do	8,564,171,351	23,551,213
Plums and prunes		do	266,006,804	4,638,111
Oranges		do	8,027,462	149,644
Lemons		do	11,287,654	303,396
Citrons		do	6,613,860	104,220
Millet	129,011	Bushels	1,574,172	
Mulberry leaves (*a*)		Pounds	517,553,946	2,381,923
Cocoons		do	22,017,782	8,392,404
Milk		Gallons	1,838,665,229	213,694,472
Wool		Pounds	95,962,479	12,121,588
Honey		do	6,432,607	2,049,481
Wax		do	4,427,157	853,105

a For silkworms.

Classifying the products given in the two preceding tables, the following are found to be their total values in 1890 and 1893:

Products.	1890.	1893.
	Dollars.	*Dollars.*
Cereals	740,400,240	539,119,495
Grass and clover	283,177,411	329,085,688
Potatoes and beets	169,137,585	188,223,573
Milk	231,685,355	213,694,472
Principal fruits and nuts (*a*)	231,560,745	273,537,931
Sundries (*b*)	52,371,368	43,032,832

a Including the value of the wine product, that of grapes not being stated.
b Includes only such miscellaneous products as are mentioned in the preceding tables.

Live stock on farms, as enumerated, on December 31 of each of the undermentioned years.

Live stock.	1893.	1892.	1891.	1890.	1889.
Horses	2,767,648	2,852,632	2,883,460	2,862,273	2,881,153
Mules	215,755	227,036	230,877	230,612	234,622
Asses	357,965	361,485	364,887	371,936	376,366
Milch cows	6,005,246	6,450,645	6,557,632	6,509,325	6,469,460
Other neat cattle	6,149,395	6,913,789	7,103,901	7,053,360	7,048,792
Sheep	20,275,716	21,504,956	21,791,909	21,658,416	21,996,731
Swine	5,860,592	6,337,100	6,096,232	6,017,238	6,037,743
Goats	1,466,451	1,528,560	1,480,229	1,505,090	1,505,470

As regards ratio of live stock to number of inhabitants, France is far behind the United States, as will be seen from the following table, which shows the number of farm animals to every 1,000 of the population in France on December 31, 1890, and in the United States on June 1, 1890:

Live stock.	France.	United States.
Horses	75	239
Mules and asses	16	36
Milch cows	171	264
Other neat cattle	185	557
Sheep	568	574
Swine	158	917

THE WINE INDUSTRY.

AREA AND PRODUCTION.

The area under vineyards in France has been gradually decreasing during the twenty years 1875–1894. This is mainly due to the abandonment of vineyards in districts where the ravages of the phylloxera have made wine growing unprofitable. It is true that the process of restocking old vineyards with American vines as a remedy against this evil is becoming quite general, but it is not yet resorted to sufficiently to arrest the downward tendency above noted. There has been a remarkable falling off in the production of wine during the period 1879 to 1892, inclusive, as compared with previous years, attributable in part to the decreased acreage, and chiefly to the spread of the phylloxera. The good effect of restocking affected vineyards with American vines became apparent in 1893, when the production again rose to 50,000,000 hectoliters (1,321,000,000 gallons) of wine, or about the same as in 1878. In 1894 there were produced 39,000,000 hectoliters (1,030,000,000 gallons), which exceeds the average production during the ten years 1884–1893 by 9,000,000 hectoliters (238,000,000 gallons).

IMPORTS OF WINE.

The temporary falling off in the production during the period 1879 to 1892 is reflected in the table of imports during these years. The importation of wine into France rose from less than 1,000,000 hectoli-

ters in 1877, in a rapidly ascending scale, to 7,000,000 hectoliters in 1880, and reached its culmination in 1887, when more than 12,282,000 hectoliters of wine were imported into France, as against an exportation of only 2,402,000 hectoliters. From 1887 there were only moderate fluctuations until the year 1891, when the importation again amounted to about 12,281,000 hectoliters. Since that year it has been rapidly declining, as shown by the following figures:

Imports of wine into France.

	Hectoliters.
1891	12,281,000
1892	9,400,000
1893	5,895,000
1894	4,492,000

EXPORTS OF WINE.

The table below shows a gradual falling off in the number of hectoliters of wine exported from France during the past twenty years, so that from an exporting country France has become an importer of wine, the imports since 1880 being largely in excess of the exports. It will be seen from the above that the home consumption of wine in France is enormous. The Bulletin de Statistique shows that the total consumption of wine in France for the year 1894 amounted to 33,000,000 hectoliters (872,000,000 gallons), or 0.86 hectoliters (22.7 gallons) per capita, exclusive of quantities consumed by the producers, and not subject to an internal-revenue tax.

Production and trade of wine in France.

Years.	Area.	Production.	Imports.	Exports.
	Hectares.	*Hectoliters.*	*Hectoliters.*	*Hectoliters.*
1875	2,396,139	78,202,088	291,829	3,730,872
1876	2,394,443	44,306,172	676,400	3,330,911
1877	2,342,639	55,273,193	707,364	3,101,638
1878	2,305,359	50,636,968	1,602,881	2,794,987
1879	2,299,220	26,523,008	2,938,111	3,046,737
1880	2,258,520	33,915,679	7,220,574	2,487,581
1881	2,245,331	38,577,689	7,838,757	2,572,196
1882	2,180,265	38,825,325	7,536,739	2,618,276
1883	2,175,486	46,165,006	8,980,793	2,541,172
1884	2,195,412	35,595,397	8,129,874	2,471,765
1885	1,971,282	31,481,124	8,183,665	2,602,776
1886	1,907,550	30,386,234	11,010,895	2,709,253
1887	1,919,878	25,365,441	12,282,286	2,402,216
1888	1,838,360	30,654,153	12,064,273	2,117,988
1889	1,836,831	23,224,000	10,474,862	2,117,803
1890	1,816,544	27,416,000	10,830,462	2,161,829
1891	1,763,374	30,140,000	12,280,658	2,043,539
1892	1,782,588	29,082,000	9,400,136	1,845,485
1893	1,793,299	50,070,000	5,895,308	1,569,109
1894	1,766,841	39,053,000	4,492,181	1,721,745

NOTE.—The figures in the preceding table up to and including the year 1891 were taken from the Annuaire Statistique de la France. For the years 1892, 1893, and 1894 the figures on area and production are from the Bulletin de Statistique et de Législation Comparée, and the figures on imports and exports from the Documents Statistiques sur le Commerce de la France. These figures do not in all cases agree with those appearing in the bulletin published by the ministry of agriculture.

CALIFORNIA WINES IN FRANCE.

In a recent report of the United States consul at Rheims to the State Department the consul states that at the Agricultural Institute of Paris a committee of experts met last year to give their opinion on about one hundred samples of California wines, selected by Mr. F. Gos in the

wine cellars of California and brought by him to Paris. In his report Mr. Gos, who has devoted his labors, time, and energy to all questions connected with the cultivation of the vine and making of wine, and who is himself a wine grower, states, as a result of the investigations of the committee, that the wine growers of California have made in a short time rapid progress in the art of preparing wine, and that however much they have accomplished they have yet a good deal to do, and it is probable that they will never surmount certain obstacles engendered by the climate and some other causes, which very likely will always prevent them from obtaining fine table wines.

The consul says:

As a general rule the ordinary wines, which are most commonly used, have been declared the best, and some of them have even compared favorably with the French "bons ordinaires." They do not, however, improve with age, but when two years old seem to lose their quality. In the category of vins ordinaires the red wines have been found superior to the white wines by reason of the fact that most of the latter are made exactly like the red wines, the white grapes used in this case being allowed to ferment in bunches. The Zinfandel wine has attracted the favorable attention of the committee on account of certain qualities it contains which are not found in the products of the other common wines.

The wines of better grade, made with the grapes grown on the vines imported from Burgundy and the Bordeaux districts, have been pronounced generally good and not lacking in aroma and clearness; however, they have been declared not to possess the "bouquet" to be found in the products of the famous wine regions of France, and, although they are at first fragrant, they do not leave a durable taste in the mouth after they have been absorbed. The opinion of the committee is that they are harsh, and, as they express it, "rasp the throat," which the French connoisseurs do not consider as good qualities. Hence they declare that no great reliance can be placed in the future development of the cultivation of the vine in California, that the natural conditions surrounding the local production are better adapted to the making of ordinary wines, but that, unfortunately, no outlet exists for these wines in the United States, where the population uses ice water, tea, coffee, milk, and alcohol, but very seldom drinks wine. While in the United States the consumption of distilled liquors reaches 6 liters (6.34 quarts) per year per head, that of wine is scarcely 1.4 liters (1.48 quarts), and the day is far remote, if it ever comes, when the extra qualities of California wines, the aim toward which all the efforts of the vine growers of that country have been directed, can be placed side by side with the best wines of France.

Twelve samples of brandy made by the best firms of California have been pronounced good, but very inferior to the products of the French Charentes.

The committee adds that by reason of the difficulties found in wine making the growers of southern California have turned their attention to the manufacture of vins de liqueur, and have fully succeeded in this line. Their port, Xeres, Malaga, and even their Muscat, equal those of Spain and Portugal.

In conclusion, this committee is of the opinion that the country lying north of San Francisco is the best adapted for fine wines, while the middle region can produce but common ordinary wines, and southern California is destined to secure big profits to the manufacturer of vins de liqueur, brandies, and to those engaged in the raisin business.

The committee finds in the example of California the evidence of the fact that if perfection can not be attained without many trials and sacrifices, wine production presents very great difficulties. The California pioneers, they say, have exhibited more energy than prudence, and they realize to-day that fine wines can not be made extempore; that it is not sufficient to possess fine vines and general notions of wine

making in order to constitute that peculiar and unaccountable thing which is called crû. And by way of consolation, the French experts are willing to concede that the Californians have done considerable work; that their cellars are admirably fitted up; that their plants are perfectly constructed and operated; that they have neglected nothing to make their goods attractive and to introduce them, and that they are progressing continuously and every year obtaining better results. The acknowledgment is made that the wines of the two last vintages are already superior to those of the preceding years, and that their final success would be certain if they could overcome the repugnance of the American population to the use of wine.

POSSIBILITIES OF VITICULTURE IN CALIFORNIA.

In connection with this subject it may be permitted to introduce an abstract from a report by Charles A. Wetmore to the California State board of viticultural commissioners for 1893–94, on the possibilities of viticulture in California, in which much information is presented in regard to the principles governing the production of types of wine in Europe and California. Among other things the report states:

Few realize that the western coast of California is probably the counterpart of the western coast of Europe, with Great Britain attached to the Continent. Every condition of soil and climate is here reproduced to compare with Xeres, Malaga, the Mediterranean coast of France, the slopes of the Alps, the valleys of the Rhine and the Rhone, and the humid climate on either side of the British Channel. In the variations of practical viticulture every distinction known to western Europe, from Gibraltar and Nice to Scotland and the Netherlands, is found on this coast, from Lower California to British Columbia. Our Algiers is inland, in Sonora County and Arizona, and our Russia and Siberia between the Rocky Mountains and the Sierra Nevada. To those who do not comprehend this coast let me say that there is no viticultural condition of Europe that has been observed, from the Rhine to the Mediterranean, and even across on the northern borders of Africa and eastward to Palestine, that can not be found in the territory from the Columbia River to the Gulf of California and eastward to Arizona. Every known variety of European wine grapevines somewhere has its natural home and somewhere the place where it can be successfully cultivated, in some places none, in others few, and in others many, just as in Europe they are found to prosper. Many mistakes and attempts to transplant have been made, and many experimentations in European methods. Our experiences and present conditions are similar to what might have been expected if during a single generation an enterprising people had found western Europe unpopulated and had attempted, with one common purpose, to establish viticulture from the Mediterranean to the Rhine from one common nursery of all vines and without such knowledge of the local peculiarities as has been in fact the growth of generations. Under such a possibility we might have had Spaniards cultivating the Palomino in the Medoc, French trying Medoc in Xeres, Germans essaying the Riesling in Languedoc, and Portuguese worshiping port on the Rhine, with numerous admixtures of all kinds of effort in all places. The present condition of California viticulture is not much different from such a supposed one in Europe, with the exception that our producers are far more intelligent and better informed as to their mistakes and the means of remedying them than European viticulturists generally are as to the causes of any of their present successes. The producer who exports is governed by the will of different markets, and California, so far as even the Atlantic States are concerned, is yet an exporter aided only by a very limited local consumption. Even France produces one kind of claret for England and another for the Argentine, one kind of champagne for Russia and another for America, one kind of Burgundy for foreigners and another for Paris, and everywhere in her own territory is satisfied with her local wines of every kind and character without recourse to foreign delicacies.

When foreigners will become satisfied with the best that each of our districts can produce without any attempt to imitate European styles, it will be time for them to

complain if we do not produce typical California wines; but so long as America demands styles like favorite European brands so long must the California producers and dealers make attempts to please them, either with ignorantly devised methods and blends or false labels, and so long as our eastern Atlantic Coast markets refuse to pay as much for qualities, whether domestic or imported, they can not expect producers to sacrifice quantity for quality in wine making to any practical extent.

The report is exhaustive and worthy of attention, as it enters very largely into all classes of wines that are manufactured throughout Europe. It also speaks of the great cleanliness in which the wines of California are made, and then adverts to the unclean methods of Europe:

From European cleanliness, except a little creditable to the Germans, we have not much to learn. Wine making in France, Spain, Portugal, Italy, and far east is unspeakably filthy; in many cases the products are in such a vile condition that they become merchantable only through the aid of the chemist. It is a popular delusion that wine cleanses itself of all impurities. Nothing is further from the truth. Every reader knows to what extent the most careful wine makers caution against exposure to foul odors. The difficulty of removing bad and foul tastes is familiar to every merchant. The persistence with which wines in bottles retain living organisms and the germs of disease to which Pasteur has given scientific attention is well known. The disgusting taste of tar in many Grecian wines (communicated to wines transported in rude goatskins smeared with tar on the hair, which is turned inside) is well known to travelers, and the dirt in Grecian currants is familiar to the housewife, but she little comprehends its nastiness.

A large number of samples of California wines were received by H. W. Wiley, chemist of the Department, and analyses of the same were made by the assistant chemist, William H. Krug. Tables showing the results of the analyses are published at the end of the report already quoted.

COMMERCE.

The French Government make the classification of merchandise into "general commerce" and "special commerce," and the distinction applies to both importation and exportation.

IMPORTATION.

"General commerce" comprises all merchandise coming from abroad, from her colonies, and the ocean fisheries, by land or sea, for consumption, as well as for warehouses, transit, reexportation, or temporary admissions.

"Special commerce" comprises such merchandise as is left at the disposition of the importers; that is to say, all merchandise exempt of duty, and, when it relates to dutiable merchandise, the quantities which have been subjected to duty.

EXPORTATION.

"General commerce" comprises all domestic or foreign merchandise that passes out of France.

"Special commerce" comprises all domestic merchandise exported, as well as foreign merchandise sent back to foreign countries after having been admitted to franchise or nationalized by virtue of payment of the import duties.

TARIFF.

Customs duties leviable on agricultural and other products imported into France.

[1 kilogram equals 2.20462 pounds; 100 kilograms equal 220.462 pounds; 1 hectoliter equals 26.417 gallons.]

Articles.	Unit.	General duty.		Conventional duty.	
		French money.	Equivalent in United States money.	French money.	Equivalent in United States money.
1. Live animals.					
Horses:		*Francs.*	*Dollars.*	*Francs.*	*Dollars.*
Stallions, geldings, mares	Per head	30.00	5.79		
Colts	do	20.00	3.86		
Mules	do	5.00	.965		
Asses	do	3.00	.579		
Cattle:					
Oxen	Per 100 kilos (live weight).	10.00	1.93		
Cows	do	10.00	1.93		
Bulls	do	10.00	1.93		
Steers, bullocks, heifers	do	10.00	1.93		
Calves	do	12.00	2.316		
Sheep	do	15.50	2.992		
Lambs, weighing 8 kilograms and less.	Per head	1.50	.29		
Goats	do	2.00	.386		
Kids	do	1.00	.193		
Swine	Per 100 kilos (live weight).	8.00	1.544		
Pigs weighing 15 kilograms and less.	Per head	1.50	.29		
Game	Per 100 kilos	25.00	4.825	20.00	3.86
Turtles	do	25.00	4.825	20.00	3.86
Poultry	do	20.00	3.86		
Pigeons	do	20.00	3.86		
Animals not elsewhere specified		Free.	Free.	Free.	Free.
2. Animal products.					
Meat, fresh:					
Mutton	Per 100 kilos	32.00	6.176		
Pork	do	12.00	2.316		
Beef and other	do	25.00	4.825		
Meat, salted:					
Pork, ham, and bacon	do	25.00	4.825		
Beef and other	do	30.00	5.79	27.00	5.211
Pork, butcher's produce (charcuterie).	do	25.00	4.825		
Poultry, dressed	do	20.00	3.86		
Game, dead	do	25.00	4.825	20.00	3.86
Turtles, dead	do	25.00	4.825	20.00	3.86
Meat preserved in tins	do	20.00	3.86	15.00	2.895
Preserved game, in tins or pots	do	75.00	14.475	60.00	11.58
Pâté de foie gras, in tins or pots	do	75.00	14.475	60.00	11.58
Extracts of meat	do	40.00	7.72	30.00	5.79
Sausage casings	do	10.00	1.93		
Hides, raw, green, or dry	do	Free.			
Peltries, raw	do	Free.			
Wool, raw, in the mass	do	Free.			
Wool, in the mass, dyed, combed, or carded.	do	32.50	6.273	25.00	4.825
Tallow	do	Free.			
Lard	do	14.50	2.799		
Other animal fats	do	Free.			
Margarine, alimentary fats, and similar substances.	do	20.00	3.86	15.00	2.895
Grease from hides	do	7.00	1.351	6.00	1.158
Beeswax, raw	do	12.00	2.316	8.00	1.544
Eggs	do	10.00	1.93	6.00	1.158
Yolks of eggs, not fit for consumption.	do	Free.			
Milk:					
Fresh	do	5.00	.965	2.50	.483
Condensed, pure	do	10.00	1.93	5.00	.965
Condensed with an addition of not more than 50 per cent of sugar.	do	*a* 8.00	1.544	*a* 6.00	1.158
Cheese	do	25.00	4.825	15.00	2.895
Butter, fresh or melted and salted	do	13.00	2.509	6.00	1.158
Honey	do	15.00	2.895	10.00	1.93

a And one-half the duty on refined sugar.

Customs duties leviable on agricultural and other products imported into France—Cont'd.

Articles.	Unit.	General duty.		Conventional duty.	
		French money.	Equivalent in United States money.	French money.	Equivalent in United States money.
2. ANIMAL PRODUCTS Continued.		*Francs.*	*Dollars.*	*Francs.*	*Dollars.*
Manures	Per 100 kilos	Free.			
Bone black	do	Free.			
Parings and glue stock	do	Free.			
Other raw animal products	do	Free.			
Codfish:					
Dried and salted	do	60.00	11.58	48.00	9.264
Air-dried, but not salted (stock fish).	do	48.00	9.264	15.00	2.895
Herring, dried, salted, or smoked	do	20.00	3.86	15.00	2.895
Other fish, dried, salted, or smoked	do	30.00	5.79	25.00	4.825
Fish, pickled, preserved in oil or otherwise.	do	30.00	5.79	25.00	4.825
Oysters:					
Fresh	Per 1,000	3.00	.579	1.50	.290
Canned and otherwise preserved.	Per 100 kilos	20.00	3.86	15.00	2.895
Lobsters:					
Fresh	do	20.00	3.86	15.00	2.895
Canned, or otherwise prepared.	do	30.00	5.79	25.00	4.825
3. FARINACEOUS FOOD.					
Wheat spelt, and meslin:					
Grain	Per 100 kilos	7.00	1.351		
Crushed, and grist containing not more than 10 per cent of flour.	do	8.00	1.544		
Flour:					
At the rate of extraction of 70 per cent and above.	do	11.00	2.123		
At the rate of extraction of between 60 and 70 per cent.	do	13.50	2.6055		
At the rate of extraction of 60 per cent and below.	do	16.00	3.088		
Oats:					
Grain	do	3.00	.579		
Meal and flour	do	5.00	.965		
Barley:					
Grain	do	3.00	.579		
Meal and flour	do	5.00	.965		
Rye:					
Grain	do	3.00	.579		
Meal and flour	do	5.00	.965		
Maize:					
Grain	do	3.00	.579		
Meal	do	5.00	.965		
Buckwheat:					
Grain	do	2.50	.483		
Meal	do	4.00	.772		
Malt	do	4.00	.772		
Ship's biscuit and bread	do	5.00	.965		
Grits, groats, and pearled grain	do	12.00	2.316		
Semolina and Italian pastes	do	10.00	1.93	8.00	1.544
Sago, tapioca, etc	do	8.00	1.544	6.00	1.158
Rice:					
Paddy	do	3.00	.579		
Broken	do	6.00	1.158		
Peeled and rice flour	do	8.00	1.544		
Beans:					
Shelled or broken	do	3.50	.676		
Whole	do	3.00	.579		
In the pod	do	1.50	2.885		
Bean meal	do	6.00	1.158		
Chick-peas	do	Free.			
Other pulse:					
Whole seeds	do	3.00	.579		
Decorticated	do	6.00	1.158		
In raw flour	do	6.00	1.158		
Chestnuts	do	3.00	.579		
Chestnut flour	do	5.00	.965		
Millet and canary-seed, grain	do	3.00	.579		
Millet and canary-seed, meal	do	4.50	.869		
Potatoes	do	0.40	.077		

Customs duties leviable on agricultural and other products imported into France—Cont'd.

Articles.	Unit.	General duty.		Conventional duty.	
		French money.	Equivalent in United States money.	French money.	Equivalent in United States money.
4. FRUITS AND SEEDS.					
Table fruits, fresh:		*Francs.*	*Dollars.*	*Francs.*	*Dollars.*
Lemons, oranges, citrons	Per 100 kilos	8.00	1.544	5.00	.965
Mandarins	do	15.00	2.895	10.00	1.93
Carobs	do	2.00	.386	1.50	.29
Hothouse grapes and fruits	do	2.00	.386	1.50	.29
Common table grapes	do	12.00	2.316	8.00	1.544
Ordinary wine grapes, residue of grapes and must.	do	12.00	2.316	8.00	1.544
Apples and pears for table use.	do	3.00	.579	2.00	.386
Apples and pears for the manufacture of cider and perry.	do	2.00	.386	1.50	.29
Other fresh fruits	do	5.00	.965	3.00	.579
Table fruits, dried:					
Figs	do	6.00	1.158	2.00	.386
Raisins	do	25.00	4.825	15.00	2.895
Apples and pears for table use.	do	15.00	2.895	10.00	1.93
Apples and pears for the manufacture of cider and perry.	do	6.00	1.158	4.00	.772
Almonds and hazelnuts, in the shell.	do	6.00	1.158	3.00	.579
Almonds and hazelnuts, shelled.	do	12.00	2.316	6.00	1.158
Other nuts, not elsewhere specified, in the shell.	do	6.00	1.158	Free.	
Other nuts, shelled	do	12.00	2.316	Free.	
Pistachio nuts	do	100.00	19.30	50.00	9.65
Prunes	do	15.00	2.895	10.00	1.93
Other dried fruits	do	15.00	2.895	5.00	.965
Fruits for distillation:					
Green aniseed, juniper berries, and fennel seed.	do	20.00	3.86	15.00	2.895
Myrtle berries and Indian figs (caetus).	do	Free.		Free.	
Raisins, figs, and dates, exclusively for distillation or for the manufacture of wine.	do	40.00	7.72	25.00	4.825
Table fruits, candied or preserved:					
In spirits	do	100.00	19.30	80.00	15.44
In sugar or honey, candied	do	(*a*)		(*a*)	
In sugar or honey, preserved otherwise.	do	(*b*)		(*b*)	
Otherwise preserved	do	10.00	1.93	8.00	1.544
Oleaginous fruits and seeds:					
Peanuts, in the shell		Free.			
Peanuts, shelled		Free.			
Linseed		Free.			
Hemp seed, turnip seed, cotton seed.		Free.			
Poppy seed and rape seed		Free.			
Mustard seed and sesame		Free.			
Copra, castor beans, and other oleaginous fruits and seeds.		Free.			
Grains for seed	Per 100 kilos	3.00	.579		
Beetroot seed	do	30.00	5.79		
Alfalfa and clover seed	do	30.00	5.79	25.00	4.825
5. COLONIAL PRODUCE.					
Tobacco:					
Leaf and stem for the Régie (monopoly).	Per 100 kilos	Free.			
Leaf and stem for private account.	do	Prohibited.			
Manufactured:					
For the Régie		Free.			
For the personal use of the importer, not exceeding 22 pounds per consignee and per annum:					
Cigars	Per 100 kilos	3,600.00	694.80		
Snuff and chewing tobacco	do	1,500.00	289.50		
Turkish smoking tobacco	do	2,500.00	482.50		
Smoking tobacco of other origin	do	1,500.00	289.50		
Other manufactured	do	Prohibited.			

a Same duty as refined sugar. *b* One-half the duty of refined sugar.

Customs duties leviable on agricultural and other products imported into France—Cont'd.

Articles.	Unit.	General duty.		Conventional duty.	
		French money.	Equivalent in United States money.	French money.	Equivalent in United States money.
6. VEGETABLE OILS AND JUICES.					
		Francs.	*Dollars.*	*Francs.*	*Dollars.*
Olive oil	Per 100 kilos	15.00	2.895	10.00	1.93
Castor oil	do	6.00	1.158	1.00	.193
Linseed, cotton-seed, sesame, and peanut oil.	do	6.00	1.158	6.00	1.158
Rape-seed and other oils	do	15.00	2.895	12.00	2.316
Fixed oils, scented	do	100.00	19.30	80.00	15.44
Tar	do	4.00	.772	3.00	.579
Essence of turpentine	do	24.00	4.632	12.00	2.316
7. FIBERS.					
Cotton (raw)		Free.			
Flax (raw, hackled, combed)		Free.			
Hemp (raw, dressed, hackled)		Free.			
Jute (raw, hackled, combed)		Free.			
8. OTHER VEGETABLE PRODUCTS.					
Vegetables:					
Fresh	Per 100 kilos	8.00	1.544	6.00	1.158
Salted or pickled	do	15.00	2.895	12.00	2.316
Preserved or dried	do	20.00	3.86	16.00	3.088
Hops	do	45.00	8.685	30.00	5.79
Chicory:					
Green	do	1.00	.193	0.75	.145
Dried, not roasted	do	4.00	.772	3.00	.579
Hay and other fodder	do	0.75	.145	0.50	.097
Oil cake		Free.			
9. BEVERAGES.					
Fermented beverages:					
Wine, exclusively the produce of the fermentation of fresh grapes, containing less than 11 degrees of alcohol.	Per hectoliter	*a* 1.20	.232	*a* 0.70	.135
Wine, exclusively the produce of the fermentation of fresh grapes, containing 11 degrees or more of alcohol.	do	(*b*)		(*b*)	
Vinegar, not perfumed, containing 8 degrees or less of acetic acid.	do	8.00	1.544	6.00	1.158
Vinegar, not perfumed, containing more than 8 degrees of acetic acid.	do	*c* 1.00	.193	*c* 0.75	.145
Cider and perry containing 6 degrees or less of alcohol.	do	*d* 0.70	.135	*d* 0.50	.097
Cider and perry containing more than 6 degrees of alcohol.	do	(*e*)		(*e*)	
Beer	Per 100 kilos	12.00	2.316	9.00	1.737
Mead	Per hectoliter of liquid.	20.00	3.86	20.00	3.86
Orange wine	do	(*f*)		(*f*)	
All other fermented beverages	do	(*e*)		(*e*)	
Distilled beverages:					
Spirits:					
Bottled	do	80.00	15.44	70.00	13.51
Not in bottles	Per hectoliter of pure alcohol.	80.00	15.44	70.00	13.51
Liqueurs	Per hectoliter of liquid.	90.00	17.37	80.00	15.44
Pomace	Per 100 kilos	2.00	.386	1.50	.29
Mineral waters	do	Free.			

a Per alcoholic degree and per hectoliter of liquid.
b Same duty as wines of less than 11 degrees of alcohol for the first 10 degrees, and for every additional degree an amount equal to the consumption duty on alcohol.
c Per degree of acetic acid.
d Per degree and per hectoliter of liquid.
e Dutiable as alcohol.
f Dutiable as wine.

Customs duties leviable on agricultural and other products imported into France—Cont'd.

Articles.	Unit.	General duty.		Conventional duty.	
		French money.	Equivalent in United States money.	French money.	Equivalent in United States money.
10. MISCELLANEOUS ARTICLES.		*Francs.*	*Dollars.*	*Francs.*	*Dollars.*
Books and newspapers		Free.			
Photographs		Free.			
Maps and charts		Free.			
Music, engraved or printed		Free.			
Reprints of copyrighted books		Prohibited.			
Agricultural machines	Per 100 kilos	15.00	2.895	9.00	1.737

American salt pork shall pay a tax of 1.50 francs ($0.29) per 100 kilos. This new tax shall be levied together with the tax for the sanitary examination of cattle and fresh meat. (Circular of February 15, 1892, No. 2135.)

A law of January 27, 1893, authorizes the French customs authorities to apply the minimum [conventional] tariff to the following articles imported from the United States:

Meat preserved in tins; table fruits, fresh; table fruits, dried, with the exception of raisins; woods, common, rough, squared, or sawn; paving blocks; staves; hops; apples and pears, crushed (pomace).

The receipts from customs duties levied on merchandise imported into France during the five years 1889 to 1893 are shown in the following tabular statement:

Years.	Receipts.	
	1,000 francs.	Dollars.
1889	355,593	68,629,400
1890	361,471	69,763,900
1891	393,623	75,969,200
1892	430,778	83,140,200
1893	449,833	86,817,800

METHOD OF VALUATION OF IMPORTS AND EXPORTS.

In France the basis of value of each article imported or exported is determined annually, under the direction of the department of commerce and industry, by a committee of experts, who receive information from chambers of commerce and other sources. The values are termed "actual values," and have for their object the determination, as accurately as possible, of the mean price of each article during the year for which they are given.

FOREIGN TRADE.

During the five years ending December 31, 1894, the total value of imports and exports of France fell from $1,580,740,000, in 1890, to $1,427,141,000, in 1894, a decrease of 9.7 per cent, as compared with a decrease of 8.8 per cent in that of the United Kingdom and six-tenths of 1 per cent in Germany during the same period, and of 6.1 per cent in the United States for the five years ending June 30, 1894. The total value of imports and exports of France for 1894 was less than the average of the five-year period 1890–1894, inclusive, by 4.4 per cent, as

compared with a decrease of 4.5 per cent in the United Kingdom and 8.9 per cent in the United States for the corresponding five-year period, while in Germany the total trade for 1894 exceeded the average by 2.4 per cent.

The following table shows the value in dollars of the total trade, including both imports and exports of merchandise, of the four leading commercial nations in the world for the five years 1890–1894, inclusive. Commercial years are identical with calendar years in the United Kingdom of Great Britain and Ireland, Germany, and France. In the United States the values given are for the years ending June 30 of each year indicated:

Total trade (exclusive of that in precious metals).

Years.	United Kingdom.	Germany.	United States.	France.
1890	$3,644,000,000	$1,778,336,000	$1,647,139,000	$1,580,740,000
1891	3,623,000,000	1,743,659,000	1,729,397,000	1,609,157,000
1892	3,481,000,000	1,659,479,000	1,857,681,000	1,476,217,000
1893	3,318,000,000	1,678,804,000	1,714,066,000	1,368,386,000
1894	3,322,000,000	1,766,983,000	1,547,135,000	1,427,141,000
Average	3,478,000,000	1,725,452,000	1,699,084,000	1,492,328,000

It will be seen from these figures that the United Kingdom has an easy lead over her nearest three competitors; in fact, her commerce is about equal to the aggregate of that of Germany and the United States, her two nearest rivals. Germany, France, and the United States are not far apart, France taking fourth rank. In 1890, 1891, and 1894 Germany occupied second place and the United States third, while for the years 1892 and 1893 this order was reversed with respect to these two countries.

The declared value in round numbers of the imports and exports of merchandise for France and their aggregate during the five years 1890 to 1894 is shown in the following table:

Special commerce of France.

Years.	Value of imports.	Value of exports.	Total value.
	Dollars.	*Dollars.*	*Dollars.*
1890	856,323,000	727,417,000	1,580,740,000
1891	920,198,000	688,959,000	1,609,157,000
1892	808,295,000	667,922,000	1,476,217,000
1893	743,764,000	624,622,000	1,368,386,000
1894	795,057,000	632,084,000	1,427,141,000
Average, 1890–1894	824,727,000	667,601,000	1,492,328,000

The following tables contain a general classification of the value, in millions of dollars, of the imports and exports of France, as far as they relate to special commerce, for the five years ending December 31, 1894:

Value of imports in millions of dollars.

Subdivisions.	1890.	1891.	1892.	1893.	1894.
Food products	279	319	270	205	242
Raw materials (*a*)	460	474	419	430	444
Manufactures	117	127	119	109	109
Total imports	856	920	808	744	795

Value of exports in millions of dollars.

Subdivisions.	1890.	1891.	1892.	1893.	1894.
Food products	165	156	147	137	139
Raw materials (*a*)	174	161	159	152	164
Manufactures	376	360	351	322	314
Mail packages	9	12	11	14	15
Total exports	724	689	668	625	632

a Including such manufactured articles as are to be used in the manufacture of final products—e. g., yarn to be used in the manufacture of woven tissues.

Value of principal articles imported from the United States into France for the years 1892, 1893, and 1894.

Articles.	1892.	1893.	1894.
	Dollars.	*Dollars.*	*Dollars.*
Cotton (raw)	31,544,000	26,963,000	31,299,000
Cereals and flour	45,214,000	11,022,000	12,057,000
Petroleum	5,850,000	3,777,000	3,772,000
Animal fats of all kinds	4,047,000	2,347,000	3,696,000
Tobacco	3,844,000	2,983,000	3,296,000
Coffee	2,358,000	3,119,000	2,556,000
Wood	826,000	1,293,000	2,005,000
Copper	849,000	2,309,000	2,181,000
Meat (fresh, salted, or otherwise preserved)	1,581,000	47,000	993,000
Hides (raw, fresh, or dried)	323,000	1,120,000	1,361,000
Lobsters (canned)	434,000	420,000	406,000
Seed grains (including alfalfa and clover seed)	154,000	402,000	593,000
Machinery	907,000	500,000	659,000
Oils (fixed, pure)	920,000	369,000	497,000

Value of principal articles exported from France to the United States for the years 1892, 1893, and 1894.

Articles.	1892.	1893.	1894.
	Dollars.	*Dollars.*	*Dollars.*
Silk—cloth, ribbons, etc	10,889,000	12,499,000	10,428,000
Wool—cloth, ribbons, etc	5,766,000	4,047,000	2,419,000
Fancy goods of Parisian make	1,968,000	1,588,000	1,864,000
Skins and furs, raw	1,683,000	648,000	972,000
Wine	1,787,000	1,451,000	1,713,000
Cotton goods	1,407,000	1,100,000	1,084,000
Feathers for ornament	1,558,000	962,000	3,377,000
Gloves (leather)	4,769,000	3,372,000	1,921,000
Other articles of leather and fur	481,000	691,000	858,000
Artificial flowers	790,000	661,000	1,193,000
Cream of tartar	567,000	430,000	878,000
Wool, raw	977,000	379,000	456,000
Hides, prepared	909,000	592,000	554,000
Clothing	871,000	1,234,000	827,000
Paper, books, and engravings	517,000	598,000	589,000
Pottery and glassware	597,000	542,000	458,000

The following table shows the share of the United States in the total special commerce of France, both as to imports and exports, in absolute values and in percentages for the years 1890 to 1894, inclusive:

Values of imports into France (special commerce).

	1890.	1891.	1892.	1893.	1894.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Total imports	856, 323, 000	920, 198, 000	808, 295, 000	743, 764, 000	795, 057, 000
Imports from the United States	61, 262, 000	93, 860, 000	102, 960, 000	61, 210, 000	71, 655, 000
Per cent of total imports obtained from the United States	7. 2	10. 2	12. 7	8. 2	9

Values of exports from France (special commerce).

	1890.	1891.	1892.	1893.	1894.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Total exports	727, 417, 000	688, 959, 000	667, 922, 000	624. 622, 000	632, 084, 000
Exported to the United States	63, 451, 000	47, 784, 000	46, 337, 000	39, 553, 000	36, 690, 000
Per cent of total exports shipped to the United States	8. 7	6. 9	6. 9	6. 3	5. 8

The percentage of exports from the United States to France, as compared with the total exports from the United States, for the fiscal year 1893–94, and for the average of the five years ending June 30, 1894, is shown in the following table:

Total value of exports from United States to all countries in 1893–94	$892, 140, 572. 00
Total amount to France, 1893–94	55, 315, 511. 00
Per cent of total, 6.20.	
Average annual value of exports from United States to all countries in last five years (1889–90 to 1893–94)	902, 478, 682. 00
Average annual amount to France	62, 346, 194. 00
Per cent of total, 6.91.	

IMPORTS OF AGRICULTURAL AND OTHER PRODUCTS.

The importation of cattle from the United States is now prohibited, as will be seen by the following, which is the text of the resolution of the minister of agriculture of France:

PROHIBITION OF THE IMPORTATION OF CATTLE FROM THE UNITED STATES.

[From the Journal Officiel de la République Française, February 25, 1895, p. 1074.]

The MINISTER OF AGRICULTURE:

Pursuant to the law of July 21, 1881, on the sanitary police regulations regarding animals, and the decree of June 22, 1882, relating to the regulations for the public administration for the observance of the same;

In view that there are many contagious diseases which do not exist in France, but prevail among the cattle in the United States of America, cases having been found among animals imported from that country into Europe, it is only reasonable that measures be taken to prevent the introduction of these diseases into our territory;

and having the opinion of the consultative committee on epizootics and on the report of the counsellor of state, director of agriculture:

Resolved:

ARTICLE 1. The importation into France and the transit of cattle coming from the United States of America over our land and sea frontiers is interdicted, until otherwise ordered. However, cattle sent from the United States before February 24, 1895, shall be admitted, providing they be landed under the conditions prescribed by law for the admission of foreign cattle.

ART. 2. Prefects of departments are charged, each as it concerns him, with the execution of this decision.

Done at Paris, February 24, 1895.

GADAUD.

The following tables, compiled from the official French documents, show the quantities and values of the principal agricultural and other products imported into France during the calendar years 1892, 1893, and 1894. In most instances the tables show the sources from which France draws her supply of the articles. Detailed statistics for the year 1894 are not in all cases available. It is curious to note the effect of the severe drought prevailing throughout central and western Europe during the summer of 1893 on the importations of various products. The forced slaughter of an unusual number of farm animals throughout France lessened the importation of cattle, sheep, swine, meat, and lard to a considerable extent during 1893, and this was followed in 1894 by a largely increased importation of live stock to cover the deficiency. Corn, oats, and other products used as animal feed were bought in largely increased quantities during 1893 to cover the deficit in the home-grown product. Hay jumped from 21,000 metric tons in 1892 to 160,000 metric tons in 1893, an increase of 662 per cent.

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894.

WHEAT. (a)

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
United States:			
Atlantic ports	6, 123, 517	2, 521, 057	1, 951, 030
Pacific ports	3, 939, 375	355, 329	1, 281, 990
Total	10, 062, 892	2, 876, 386	3, 233, 020
Russia	2, 300, 189	3, 430, 431	5, 003, 552
Roumania	984, 010	404, 655	499, 350
Turkey	1, 203, 435	659, 786	421, 874
British India	1, 674, 421	448, 779	367, 100
Australia	610, 210	671, 652	585, 554
Argentina	431, 461	695, 674	694, 142
Algeria	780, 746	381, 094	781, 000
Tunis	333, 125	209, 398	366, 188
Total quantity imported	18, 842, 370	10, 031, 629	12, 490, 997
Total value in dollars	80, 637, 500	32, 276, 700	40, 455, 900

a Including small quantities of spelt and meslin.

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

OATS.

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
Belgium	1,951	284,733	291,748
Russia	7,658	1,348,723	3,227,629
Sweden	1	335,212	700,125
Turkey	178,470	218,695	247,916
Algeria	186,097	415,883	460,166
Total quantity imported	395,305	3,075,775	5,484,941
Total value in dollars	1,347,500	10,352,500	18,284,800

BARLEY.

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
Russia	113,748	1,267,068	1,697,276
Belgium	16,032	249,268	230,890
Turkey	26,053	25,805	67,851
Algeria	785,707	373,887	426,954
Tunis	36,028	96,900	178,128
Total quantity imported	1,084,139	2,464,865	2,878,296
Total value in dollars	3,546,600	7,975,700	9,310,127

MAIZE.

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
Russia	187,174	355,207	499,634
Roumania	440,994	1,473,673	915,503
Turkey	198,959	235,115	374,375
United States	504,186	454,196	457,599
Argentina	455,283	143,717	115,142
Total quantity imported	2,063,529	2,727,409	2,491,392
Total value in dollars	5,973,900	7,895,800	7,212,600

WHEAT FLOUR. (*a*)

[In metric quintals of 220.462 pounds.]

Countries.	1892.	1893.	1894.
Belgium	71,272	3,448	2,389
Germany	6,411	2,787	1,734
Austria-Hungary	141,491	129,237	163,750
Italy	5,743	12,898	4,872
United States	165,413	1,727	1,360
Algeria	15,304	4,140	7,387
Total quantity imported	425,566	159,013	202,299
Total value in dollars	2,495,100	774,300	988,500

a Including small quantities of flour made from spelt and meslin.

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

RYE AND BUCKWHEAT.

[Quantities in metric quintals of 220.462 pounds each.]

Grains.	1892.			1893.			1894.		
	Quantity.	Value.		Quantity.	Value.		Quantity.	Value.	
		Francs.	Dollars.		Francs.	Dollars.		Francs.	Dollars.
Rye	656	10,332	1,994	8,022	128,352	24,772	67,273	1,076,368	207,739
Buckwheat	22	330	64	19	294	57	8	124	24

Quantities of flour and meal other than wheat imported into France for the years 1892, 1893, and 1894.

[In metric quintals of 220.462 pounds each.]

Kinds of flour or meal.	1892.	1893.	1894.
Oats	60	181	319
Barley	25	39	249
Rye	815	820	4,460
Maize (Indian corn)	1,197	491	558
Buckwheat	41	32	42

Values of flour and meal other than wheat imported into France for the years 1892, 1893, and 1894.

Kinds of flour or meal.	1892.		1893.		1894.	
	Francs.	*Dollars.*	*Francs.*	*Dollars.*	*Francs.*	*Dollars.*
Oats	1,635	316	5,023	969	8,852	1,708
Barley	713	138	1,131	218	7,221	1,394
Rye	17,930	3,460	18,860	3,640	102,580	19,798
Maize (Indian corn)	28,728	5,545	12,275	2,369	13,950	2,692
Buckwheat	1,066	206	840	162	1,103	213

RICE (PADDY).

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
Italy	12,173	22,271	.....
British India	121,293	92,375	119,549
Dutch East Indies	613	.....	.....
Japan	78,289	116,633	.....
French India	220,127	.....	.....
French Indo-China	125,183	609,701	576,596
Total quantity imported	557,869	841,365	849,835
Total value in dollars	1,938,100	3,085,300	3,116,400

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

RICE (PEELED, RICE FLOUR, AND GRITS).

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
Belgium	412	94	2,626
Germany	444	541	.....
Netherlands	28,653	30,449	.....
United Kingdom	2,781	1,222	2,584
Italy	12,623	14,102	16,193
British India	1,043	1,754	2,865
Japan	3,857	15,314	.....
United States	246	172	.....
Indo-China	56,237	85,384	363,688
Total quantity imported	106,457	149,298	429,119
Total value in dollars	719,100	1,037,400	2,981,500

COTTON.

[In metric quintals of 220.462 pounds each.]

Countries.	1892.	1893.	1894.
United Kingdom	53,370	62,009	74,041
Turkey	17,144	11,156	16,733
Egypt	116,798	100,717	123,194
British India	234,084	185,647	187,096
United States	1,541,888	1,214,837	1,410,202
Total quantity imported	2,020,896	1,639,745	1,865,064
Total value in dollars	39,955,200	35,557,400	40,315,200

COTTON SEED OIL.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
	Net weight.	*Net weight.*	*Gross weight.*
United Kingdom	5,301,740	8,203,375	.....
Spain	701,751	.....	.....
Italy	.....	7,638	.....
United States	6,810,870	2,980,012	.....
Other countries	131,649	22,593	.....
Total quantity imported	12,946,010	11,213,618	11,309,345
Total value in dollars	1,749,000	1,385,200	1,287,900

OLIVE OIL.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
	Net weight.	*Net weight.*	*Gross weight.*
Belgium	6,374	53,401	.....
United Kingdom	5,960	.....	.....
Austria-Hungary	19,053	23,807	.....
Spain	3,194,447	5,189,944	2,683,078
Italy	6,380,962	5,859,786	9,084,597
Greece	396,324	1,479,821	.....
Turkey	353,013	696,854	.....
Morocco	.....	80,523	.....
Algeria	2,576,436	746,526	1,162,396
Tunis	8,185,844	4,361,912	11,749,481
Other countries	10,106	6,183	1,893,717
Total quantity imported	21,128,519	18,498,737	26,573,229
Total value in dollars	4,159,300	3,284,700	4,359,300

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

COTTON SEED.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
United Kingdom	2,207		
Egypt	31,718,918	27,380,283	
Dutch East Indies		311,016	
United States	510,860	413,990	
Mexico	50,000	203,000	
Brazil		225,000	
Indo-China	39,340		
Other countries	27,025	104,361	
Total quantity imported	32,348,350	28,637,650	27,290,748
Total value in dollars	936,400	773,700	737,500

OIL CAKE.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Russia	7,032,131	14,149,703	
Germany	73,987	1,089,965	
Netherlands		381,050	
Belgium	7,538,318	32,118,724	
United Kingdom	4,998,398	13,557,452	
Spain	169,239	3,084,993	
Italy	336,261	2,991,870	
Egypt	41,083	355,631	
British India	31,037		
United States	3,021,000	6,019,413	
Argentina	1,800,564	1,142,449	
Other countries	82,244	759,128	
Total quantity imported	25,124,262	75,650,378	80,441,106
Total value in dollars	678,800	2,336,100	3,096,900

WOOL (RAW).

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Russia	3,916,820	3,486,142	
Germany	618,377	711,621	
Netherlands	618,819	358,042	
Belgium	34,609,122	37,093,000	29,919,139
United Kingdom	40,769,230	42,209,369	41,916,855
Austria-Hungary		242,091	
Spain	2,760,259	4,633,178	
Italy	715,450	497,227	
Turkey	2,805,709	2,834,828	4,957,672
Egypt	165,828		
Tripoli	422,260	302,133	
Morocco	2,267,898	2,335,059	
British India	470,914	636,548	
Australasia	24,136,501	21,355,993	31,300,764
Brazil		166,495	
Uruguay	3,933,115	6,166,546	7,586,220
Argentina	76,741,861	79,636,621	87,698,432
Chile	584,489	791,100	
Peru		123,622	
Algeria	6,690,317	9,123,211	8,486,203
Tunis		212,322	
Other countries	309,410	637,545	13,110,540
Total quantity imported	202,536,379	213,552,693	224,975,835
Total value in dollars	61,566,000	62,647,800	65,998,900

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

HOPS.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Russia	.....	52,682	.....
Germany	1,789,223	1,222,555	1,399,509
Belgium	1,082,193	1,116,335	1,142,183
Switzerland	16,427	.....	.....
Other countries	16,571	29,958	73,398
Total quantity imported	2,904,414	2,321,530	2,615,090
Total value in dollars	1,793,700	1,478,600	1,665,600

HAY AND FODDER OF ALL KINDS.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Russia	129,369	3,713,555	.....
Sweden	.....	1,013,743	.....
Norway	528,277	3,968,789	.....
Germany	5,466,989	5,953,905	.....
Netherlands	742,749	10,264,841	.....
Belgium	5,887,424	26,902,246	.....
United Kingdom	.....	1,414,963	.....
Austria-Hungary	1,787,372	4,589,868	.....
Spain	1,013,067	16,273,053	.....
Italy	2,472,172	61,756,619	.....
Roumania	.....	1,175,333	.....
Switzerland	930,855	.....	.....
United States	.....	7,216,613	.....
Argentina	386,092	5,443,179	.....
Chile	613,131	1,033,535	.....
Canada	.....	3,481,895	.....
Other British Possessions	.....	1,451,790	.....
Algeria	1,161,581	3,248,437	.....
Other countries	158,723	1,195,031	.....
Total quantity imported	21,277,801	160,097,395	85,639,424
Total value in dollars	250,500	4,634,900	2,479,300

BEER.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Norway	10,333	8,394	.....
Denmark	167,014	91,252	.....
Germany	16,045,282	15,763,579	14,802,900
Netherlands	2,413,986	2,098,933	.....
Belgium	178,439	137,744	.....
United Kingdom	1,629,110	1,500,510	1,343,900
Austria-Hungary	256,719	168,019	172,000
Italy	.....	34,340	.....
Switzerland	587,342	356,057	.....
Réunion	19,426	.....	.....
Other countries	8,251	5,168	2,139,200
Total quantity imported	21,315,902	20,163,996	18,458,000
Total value in dollars	1,645,500	1,945,800	1,781,200

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

SPIRITS (DISTILLED).

Classification.	Quantity.	Value.
	Hectoliters of 26.417 gallons each.	*Dollars.*
Brandy:		
1892	13,133	215,400
1893	7,337	119,500
1894	10,270	158,600
Cherry brandy (kirsch):		
1892	398	24,900
1893	331	20,800
1894	349	21,800
Rum:		
1892	125,876	2,186,500
1893	118,833	1,949,500
1894	118,247	1,939,800
Other:		
1892	5,851	56,500
1893	6,954	67,200
1894	5,106	49,200

WINE (ORDINARY) IMPORTED IN CASKS.

[Quantities in hectoliters of 26.417 gallons each.]

Countries.	1892.	1893.	1894.
Germany	8,011	8,641	.....
Belgium	.....	262	.....
United Kingdom	1,242	799	.....
Portugal	47,622	1,073	1,127
Austria-Hungary	79,397	8,844	.....
Spain	5,394,074	3,429,689	2,052,651
Italy	333,726	118,310	23,491
Switzerland	2,337	13,000	.....
Greece	210,219	128,475	.....
Roumania	1,354	.....	.....
Turkey	153,880	72,929	.....
Chile	906	.....	.....
Algeria	2,821,386	1,817,179	1,994,688
Tunis	47,322	42,604	36,121
Other countries	1,818	2,254	133,181
Total quantity imported	9,103,294	5,644,059	4,230,659
Total value in dollars	52,708,100	30,500,600	22,862,400

WINE.

[Quantities in hectoliters of 26.417 gallons each.]

Classification.	Quantity.	Value.
	Hectoliters.	*Dollars.*
Wine (ordinary) imported in bottles:		
1892	4,240	61,400
1893	3,746	43,400
1894	3,895	45,200
Wine (vins de liqueur):		
A.—Imported in casks—		
1892	291,407	6,186,600
1893	246,322	4,754,000
1894	256,862	4,957,400
B.—Imported in bottles—		
1892	1,195	29,900
1893	1,181	27,400
1894	765	17,800

Quantities of principal agricultural and other products imported into France for the years 1892, 1893, and 1894—Continued.

AGRICULTURAL MACHINERY.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Germany	337,192	379,798	.....
Belgium	62.015	68,373	.....
United Kingdom	1,870,838	2,092,670	.....
Italy	1.693	.....	.....
Switzerland	76,739	53,504	.....
United States	2,119,432	1,538,853	.....
Algeria	.....	28,455	.....
Other countries	68,059	73,550	.....
Total quantity imported	4,535,968	4,235,203	3,513,204
Total value in dollars	915,600	858,300	712,000

Importations of animals and animal products into France for the years 1892, 1893, and 1894.

CATTLE OF ALL KINDS.

Countries.	1892.	1893.	1894.
Netherlands	6,407	2,378	.....
Belgium	4,358	1,552	.....
Italy	3,025	866	.....
Argentina	344	.....	.....
Switzerland	4,983	8,283	.....
Spain	419	184	.....
Algeria	15,829	5,331	.....
Tunis	.....	518	.....
Other countries	1,292	1,196	.....
Total number imported	36,657	20,308	197,269
Total value in dollars	1,772,100	944,900	10,190,900
Approximate average value per head	$47.00	$46.50	$51.50

HORSES.

Countries.	1892.	1893.	1894.
Belgium	2,960	3,205	.....
Denmark	1,437	2,408	.....
Germany	1,633	157	.....
United Kingdom	1,444	1,505	.....
Netherlands	1,615	1,504	.....
Spain	618	167	.....
Austria-Hungary	1,588	1,800	.....
Italy	80	335	.....
Switzerland	.....	1,327	.....
Algeria	694	642	.....
Other countries	2,274	2,219	.....
Total number imported	14.343	15,269	21,029
Total value in dollars	3,540,200	3,541.300	4,817,300
Average value per head	$247	$232	$229

Importations of animals and animal products into France for the years 1892, 1893, and 1894—Continued.

SHEEP AND LAMBS.

Countries.	1892.	1893.	1894.
Russia	148,362	25,569	.....
Denmark	.....	1,690	.....
Germany	147,669	240,738	233,736
Netherlands	29,958	.....	.....
Belgium	14,987	.....	.....
Austria-Hungary	103,928	129,147	253,391
Italy	9,327	3,912	410
Switzerland	22,125	4,141	.....
Argentina	18,347	10,986	.....
Spain	189	98	.....
Algeria	901,548	778,699	1,427,331
Tunis	3	25	986
Other countries	4,570	950	76,410
Total number imported	1,401,013	1,195,955	1,992,264
Total value in dollars	8,550,100	7,033,900	11,407,700
Approximate average value per head	$6.10	$5.90	$5.70

The export of sheep to France from the United States is now temporarily suspended, owing to the exaction of the French Government of a certificate from a United States veterinary inspector to accompany all sheep landed in that country from the United States, which shall positively certify that none of them have been exposed to any contagious disease for a period of six weeks prior to date of shipment. Owing to the possibility of exposure to scab, such a certificate from the United States veterinary inspectors can not be given at present.

SWINE. (*a*)

Countries.	1892.	1893.	1894.
Belgium	12,465	.....	58
Germany	.....	6	2
Italy	1,171	22	48
Algeria	101	354	5,181
Other countries	241	732	34,778
Total number imported	13,978	1,114	40,067
Total value in dollars	296,800	24,700	889,300
Approximate average value per head	$21	$22	$22

(*a* Exclusive of pigs weighing 15 kilograms (33.07 pounds) per head or less.

PIGS.

[Weighing 15 kilograms (33.07 pounds) or less per head.]

	1892.	1893.	1894.
Number of pigs	7,403	2,902	9,357
Value in dollars	17,200.00	6,200.00	19,900.00
Approximate average value per head	$2.30	$2.10	$2.10

OTHER LIVE ANIMALS.

Animals.	1892.	1893.	1894.
Mules and asses ... number	3,053	2,838	4,696
Goats and kids ... do	1,358	734	1,311
Game (hares, rabbits, etc.) ... kilograms	91,959	73,032	44,973
Turtles ... do	25,443	30,350	37,097
Poultry ... do	933,866	868,668	1,247,077
Pigeons ... do	1,058,582	1,363,457	1,620,246
Dogs ... number	1,817	1,777	2,139
Bees ... number of hives	580	492	659
Leeches ... thousands	1,721	1,094	2,195

Importations of animals and animal products into France for the years 1892, 1893, and 1894—Continued.

VALUE OF OTHER LIVE ANIMALS.

Animals.	1892.	1893.	1894.
	Francs.	*Francs.*	*Francs.*
Mules and asses	587, 800	747. 700	1, 067, 350
Goats and kids	16, 274	10, 333	18. 910
Game (hares, rabbits, etc.)	312, 660	237. 354	146. 162
Turtles	25, 443	30, 350	37, 097
Poultry	1, 587, 572	1. 389. 869	1, 995, 323
Pigeons	3, 069, 888	3, 885, 852	4, 617. 701
Dogs	363, 400	355. 400	427, 800
Bees	14, 500	12, 300	16, 475
Leeches	86, 050	43. 760	87, 800
Live animals, not elsewhere specified	805, 969	826. 131	1, 266, 738
Total value in francs	6. 869, 556	7, 539, 049	9, 681, 356
Total value in dollars	1, 325, 824	1, 455. 036	1, 868, 502

SALT PORK, HAM, AND BACON.

[In kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Germany	862, 106	816, 173	.....
Belgium	259. 998	191, 151	.....
United Kingdom	1, 688, 664	1, 334, 912	.....
Italy	24, 647	13, 179	.....
Switzerland	30, 511	13, 715	.....
United States	527. 593	18, 802	.....
Other countries	82, 287	11, 972	.....
Total quantity imported	3, 445, 811	2, 390. 904	4, 728. 957
Total value in dollars	964, 200	671, 600	1, 323, 400

FRESH PORK, BEEF, AND OTHER MEATS.

	Quantities.	Values.	
	Kilograms of 2.20462 lbs.	*1,000 francs.*	*Dollars.*
Pork (fresh):			
1892	1, 044. 014	1, 253	241, 800
1893	660. 957	826	159. 400
1894	6, 137, 455	7. 671	1, 480. 500
Beef (fresh) and other fresh meats:			
1892	2 385, 607	3. 578	690, 600
1893	2, 021, 981	2. 932	565, 900
1894	2, 739, 787	3, 973	766, 800

MUTTON (FRESH).

[In kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Belgium	136, 893	129, 135	129, 421
Germany	1, 333, 055	181	135
Italy	.....	129, 332	.....
Switzerland	1. 119, 752	813	127
Argentina	1. 151. 205	257, 267	.....
Other countries	223, 724	145, 004	1, 406, 982
Total quantities imported	3. 964. 629	532, 400	1, 741, 363
Total value in dollars	1, 300, 800	169, 500	555, 500

Importations of animals and animal products into France for the years 1892, 1893, and 1894—Continued.

SALTED MEATS OF ALL KINDS EXCEPT HOG PRODUCT.

(In kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Germany	17,083	23,634	.....
Netherlands	52,630	65,874	.....
Belgium	57,971	21,370	.....
United Kingdom	1,743	1,536	.....
United States	5,987	1,313	.....
Argentina	33	10,076	.....
Other countries	8,548	7,213	.....
Total quantity imported	143,995	131,016	133,108
Total value in dollars	36,100	31,700	32,000

BUTTER.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Butter, fresh or melted:	*Net weight.*	*Net weight.*	*Gross weight.*
Germany	197,917	81,096	.....
Belgium	2,812,282	2,960,210	3,802,080
Italy	900,789	1,019,008	1,270,536
Switzerland	514,106	314,097	.....
Other countries	15,691	69,846	391,497
Total quantity imported	4,440,785	4,444,257	5,464,113
Total value in dollars	2,400,000	2,573,300	2,847,300
Butter, salted:			
Netherlands	125,415	.....	.....
Belgium	272,587	110,127	.....
United Kingdom	67,477	105,037	.....
Italy	139	995	.....
Other countries	5,027	22,187	.....
Total quantity imported	470,645	238,346	216,933
Total value in dollars	181,600	101,100	79,100

EGGS.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
	Net weight.	*Net weight.*	*Gross weight.*
Russia	162,457	.....	.....
Germany	434,370	650,399	.....
Belgium	2,404,076	2,370,332	3,718,348
Austria-Hungary	104,868	301,993	.....
Italy	1,082,212	1,174,216	2,980,369
Turkey	723,990	467,760	.....
Tripoli	.....	98,832	.....
Other countries	146,910	116,989	4,153,098
Total quantity imported	5,058,883	5,180,521	10,851,815
Total value in dollars	1,152,000	1,299,900	2,115,300

Importations of animals and animal products into France for the years 1892, 1893, and 1894—Continued.

CHEESE.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Germany	711, 914	847, 556	.....
Netherlands	4, 215, 897	4, 386, 506	5, 108, 094
Belgium	354, 312	259, 830	.....
United Kingdom	79, 211	74, 520	.....
Italy	600, 572	687, 878	881, 487
Switzerland	6, 396, 504	5, 307, 082	5, 423, 213
Other countries	26, 759	1, 079, 122	3, 209, 916
Total quantity imported	12, 385, 169	12, 642, 494	14, 622, 710
Total value in dollars	3, 250, 900	3, 464, 700	4, 007, 500

TALLOW.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Australasia	1, 840, 112	2, 073, 041	466, 482
United States	4, 821, 408	5, 339, 289	1, 702, 884
Uruguay	2, 446, 600	526, 578	640, 538
Argentina	4, 061, 902	5, 083, 621	5, 868, 040
Other countries	1, 360, 000	4, 438, 102	5, 430, 580
Total quantity imported	14, 530, 022	17, 460, 631	14, 108, 524
Total value in dollars	1, 710, 600	2, 392, 600	1, 933, 300

LARD.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
United Kingdom	1, 522, 454	420, 613	1, 242, 528
United States	18, 764, 796	5, 830, 310	13, 062, 810
Other countries	2, 130, 010	1, 253, 191	2, 180, 864
Total quantity imported	22, 417, 260	7, 504, 114	16, 486, 202
Total value in dollars	3, 980, 400	1, 926, 100	4, 231, 900

MARGARINE, OLEOMARGARINE, AND SIMILAR PRODUCTS.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Netherlands	740, 538	563, 631	.....
Belgium	392, 460	755, 183	.....
United Kingdom	.....	137, 344	.....
Other countries	26, 269	32, 079	.....
Total quantity imported	1, 159, 267	1, 488, 237	1, 115, 943
Total value in dollars	257, 300	359, 000	269, 200

Importations of animals and animal products into France for the years 1892, 1893, and 1894—Continued.

DRESSED POULTRY.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Germany	134,730	65,583	.....
Belgium	221,046	201,638	.....
Austria-Hungary	95,209	114,017	.....
Spain	13,676	.....	.....
Italy	368,926	356,320	.....
Switzerland	.....	1,228	.....
Other countries	10,899	7,223	.....
Total quantity imported	844,576	746,009	984,936
Total value in dollars	391,200	331,200	437,100

CANNED MEATS.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Belgium	622,063	19,632	.....
United Kingdom	562,494	84,466	.....
United States	4,903,254	69,327	.....
Uruguay	471,460	.....	.....
Argentina	531,063	.....	.....
New Caledonia	733,348	1,067,291	.....
Sainte-Marie (Madagascar)	.....	1,080,129	.....
Other countries	47,333	9,081	.....
Total quantity imported	7,871,015	2,329,926	4,191,849
Total value in dollars	2,278,800	584,600	1,051,700

SAUSAGE CASINGS, FRESH, DRIED, OR SALTED.

[Quantities in kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
Germany	93,326	94,924	.....
United Kingdom	136,129	104,511	.....
United States	59,573	60,884	.....
Belgium	.....	70,437	.....
Other countries	161,360	128,341	.....
Total quantity imported	450,388	459,097	492,897
Total value in dollars	108,700	115,200	123,700

Importations of animals and animal products into France for the years 1892, 1893, and 1894—Continued.

OTHER ANIMAL PRODUCTS.

	Quantity.	Value.
Pigeons, dressed:	*Kilograms.*	*Dollars.*
1892	18,576	13,700
1893	24,315	17,000
1894	49,627	34,500
Game, dressed:		
1892	1,728,356	734,000
1893	1,893,636	767,600
1894	2,192,824	888,800
Game, canned:		
1892	4,894	5,600
1893	1,235	1,400
1894	2,169	2,500
Pâté de foie gras:		
1892	36,132	69,700
1893	45,896	88,600
1894	45,896	88,600
Meat extract:		
1892	127,103	220,800
1893	223,272	387,700
1894	240,051	416,900
Pork butchers' meats (sausages, etc.) (charcuterie):		
1892	427,466	206,300
1893	514,775	248,400
1894	697,940	336,800

THE IMPORTATION OF AMERICAN PORK.

The prohibition of the importation into France of American salted pork, hams, and bacon lasted from February 18, 1881, until December 3, 1881. During that period the interdiction of American pork was the subject of a long chapter of tedious diplomatic correspondence, which resulted finally in the passage of a law by the French Legislature, amending their general custom-house tariff law of May 7, 1881, viz, "Salted pork, hams, and bacon, 25 francs per 100 kilos, or $4.82½ per 220.462 pounds," upon which the late President Carnot, on December 4, 1891, issued the following decree:

ARTICLE 1. Salted pork meats from the United States can be imported into France at points to be fixed by subsequent decree.

ART. 2. Before discharge of cargo, the importers must produce for each shipment a certificate from the inspector of the Department of Agriculture designated by the Government of the United States for the inspection of the slaughterhouses, certifying that the meats are from healthy animals and suitable for human food. The boxes must bear the official stamp of this inspector. No shipment can be admitted which does not comply with these requirements.

ART. 3. After their discharge these meats shall be examined by sanitary inspectors appointed by the minister of agriculture, and instructed to make sure of their healthy condition and of their being properly salted. All meat found unwholesome shall be destroyed in the presence of these inspectors.

ART. 4. The custom-house shall permit the meats mentioned in article 1 to enter the territory of the Republic only after seeing the certificate of the inspectors provided for by article 3, certifying that the meats have been found to be healthy and suitable for public consumption.

ART. 5. The expenses of the inspection prescribed by article 3 shall be paid by the importers, according to a tax fixed by a decree issued on the proposal of the minister of agriculture on the advice of the consultation committee on epizootics. This tax shall be paid to the custom-house collectors.

ART. 6. The decrees of the 18th of February, 1881, and of the 28th of December, 1883, are repealed, as well as all other regulations which may be in conflict with this present decree.

ART. 7. The minister of agriculture, the minister of the interior, the minister of commerce, industry, and the colonies, and the minister of finance are intrusted with the execution of the present decree, which will go into effect on the 1st of January, 1892.

FRENCH COTTON SPINDLES.

A late semiofficial estimate makes the number of cotton spindles in France 5,000,000. At the end of 1890 there existed about 4,000,000 cotton spindles, according to official statistics, and the results of estimates made by the northern and eastern industrial syndicates show that since 1890 the number of spindles has increased by 300,000 in the north and 388,000 in the east, showing an increase in these two regions alone of nearly 700,000 spindles. The increase of the Rouen district is estimated at 50,000 spindles, and it is probable that the increase in the whole of Normandy and in the other districts of the west and south from 1890 to 1893 reached about 200,000 spindles, and the whole increase of the French spinning industry in four years may, therefore, be estimated at 900,000 spindles. The following is an estimate of the number of spindles in the various European countries:

Estimated:	
Belgium	1,250,000
Switzerland	1,200,000
Austria	4,000,000
Russia	5,600,000
Official:	
United Kingdom	53,641,062
Prussia	1,344,250
Alsace-Lorraine	1,400,000
Bavaria	1,165,636
Saxony	1,331,427
Wurtemberg	435,885
Baden	395,134
United States (1893–94), estimated	15,700,000

TOBACCO MONOPOLY AND MANUFACTURE IN FRANCE.

By imperial decrees dated, respectively, December 9, 1810, and January 12, 1811, it was ordained that, in view of a more equitable and productive system of revenue and to protect and encourage the interests of French agriculturists, for the future the purchase of tobacco and fabrication and sale (whether wholesale or retail) of manufactures of tobacco should be exclusively confined to the administration of indirect taxes (Régie des Droits Unis) in all the departments of the Empire. Buying or fabricating tobacco any other than that grown within the Empire was prohibited, excepting one-fifteenth part, which might be obtained from abroad. The prices that the Régie would pay for the

coming crop were fixed and announced by the 1st of January of each year, and the tobacco was divided into three classes—good, medium, and bad—each having its predetermined price.

By subsequent decrees, ordinances, and laws the monopoly has been prolonged from time to time, usually at intervals of ten years. It is now under the immediate control of the minister of finance, and has been thoroughly reorganized; a corps of scientific agents was selected and regulations for its recruitment from among the graduates of the polytechnic school were issued. The graduates are appointed under the name of "ingénieurs aux tabacs," and have to undergo a subsequent course of two years' study and practice in the laboratories and manufactories, after which a career of promotion is opened to them, depending entirely upon their ability and merit for its extent, followed by a pension in old age.

By means of this excellent civil service France has obtained not only capable, conscientious, and useful servants, but the products of its factories have steadily improved, and to it, without doubt, a large degree of its financial success must be attributed.

Full and important information in respect to the Régie can be found in the Consular Reports on Commerce, Manufactures, etc., of the consuls of the United States for November, 1880, part 2.

According to Bulletin de Statistique et de Législation Comparée for 1895, the gross and net receipts derived from the tobacco Régie, the expenses, and revenue per capita for the year 1892 were as follows:

	Gross receipts.	Expenditures.	Net receipts.	Population.	Revenue per capita.
	Dollars.	*Dollars.*	*Dollars.*	*Number.*	*Dollars.*
1892	42, 179, 384. 89	12, 730, 859	59, 964, 714	38, 343, 192	1. 5633

Quantities of tobacco imported into France for the years 1892, 1893, and 1894, showing the principal countries of supply.

TOBACCO (LEAF AND STEM).

[In kilograms of 2.20462 pounds each.]

Countries.	1892.	1893.	1894.
United States	16, 598, 930	12, 565, 842	13, 885, 036
Algeria	1, 970, 008	2, 635, 554	1, 605, 041
Other countries	4, 262, 053	4, 277, 566	5, 816, 192
Total quantities imported	22, 830, 991	19, 478, 962	21, 306, 269
Total value in dollars	5, 287, 600	4, 624, 100	5, 058, 000

Quantities of tobacco imported into France for the years 1892, 1893, and 1894.

TOBACCO (MANUFACTURES OF).

Classification.	Quantity.	Value.	
	Hundreds.	*1,000 francs.*	*Dollars.*
Cigars:			
1892	164, 929	4, 167	792, 700
1893	140, 043	3, 305	637, 900
1894	96, 663	2, 281	440, 200
Cigarettes:	*Kilograms.*		
1892	60, 870	1, 013	195, 500
1893	30, 993	642	123, 900
1894	13, 846	287	55, 400
Other manufactures of tobacco:			
1892	7, 978	68	13, 100
1893	6, 707	68	13, 100
1894	6, 229	64	12, 400

SUGAR.

The following table shows the quantities of various kinds of sugar imported into France during the five years 1890–1894, as well as the quantity produced in France during the corresponding five campaigns:

Production and importation of sugar.

[Quantities in metric tons of 2,204.62 pounds each.]

Years.	Imports.					Production of refined sugar.	
	Raw sugar from French colonies.	Cane sugar from foreign countries.	Beet sugar from foreign countries.	"Vergeoises."	Refined sugars.	Campaign years.	Quantity in metric tons.
1890	113, 808	37, 719	559	214	2, 674	1890–91	616, 889
1891	106, 610	58, 580	991	22	2, 396	1891–92	578, 109
1892	106, 627	65, 194	180	43	2, 047	1892–93	523, 366
1893	110, 884	33, 351	708	161	2, 325	1893–94	514, 788
1894	115, 619	55, 208	434	572	2, 034	1894–95	*a* 710, 000

a Estimated.

MONEY, WEIGHTS, AND MEASURES.

The monetary union between France, Belgium, Switzerland, and Italy was formed in 1865, and was joined by Greece in 1868. The convention was renewed in 1878, 1885, and 1890, and, unless again renewed, will end in 1895.

The countries in the union have their gold and silver coins of the same weight and fineness, and each in its public offices accepts payment in the coin—gold or (with the limitation stated below) silver—of the others. When the term of the convention expires, each may return to each of the others the silver money which it has received from them, respectively, and must accept its own silver coin in return, or, if the supply of this is insufficient, be repaid in gold.

The coinage system of the Latin Monetary Union is followed also in Finland, Roumania, Servia, Spain, and, partially, in several of the South American Republics.

The franc of 100 centimes is of the value of 19.3 cents.

Gold coins in common use are 20, 10, and 5 franc pieces. The 20-franc gold piece weighs 6.4516 grams, 900 fine, and this contains 5.80645 grams of fine gold.

Silver coins are 5, 2, 1, and ½ franc pieces. The 5-franc silver piece weighs 25 grams, 900 fine, and this contains 22.5 grams of fine silver. The franc piece weighs 5 grams, 835 fine, and contains 4.175 grams of fine silver.

Bronze coins are 10 and 5 centime pieces.

There is a double standard of value, gold and silver, the ratio being theoretically 15½ to 1. Of silver coins, however, only 5-franc pieces are legal tender, and of these the free coinage has been suspended since 1876.

The metric system of weights and measures is in use in France, which was the first country to adopt the same. Equivalents are found on the fourth page of the cover of this bulletin.

CONSULAR REPORTS.

BORDEAUX.

(*Report of Mr. John M. Wiley, consul at Bordeaux, France.*)

[Bordeaux, on the Garonne, 60 miles from its mouth and 359 miles south-southwest of Paris, is the third seaport in importance in France. It has a magnificent harbor, in which 1,200 ships of the largest size can ride at anchor at one time. Bordeaux is the metropolis of one of the most important wine-growing regions in the world, the production of the Bordeaux district amounting in 1894 to no less than 859,166,000 gallons. The industries of the city include the manufacture of brandy and other spirits, sugar, tobacco, vinegar, paper, earthenware, casks, bottles, chemicals, etc.; its principal exports being wine, brandy, dried fruits, lace, clothing, jewelry, and vinegar. Its largest trade is with Great Britain and South America. Population: In 1872, 190,682; in 1891, 252,415.]

The various articles mentioned in the circular of December 24, 1894, which was published in Bulletin No. 1 of this series, are all, with a few exceptions, sold in this market. The exceptions are glucose, oleomargarine, raw cotton, cotton seed, cotton-seed oil, oil cake, and cottolene. There would be no sale for raw cotton at this port for the reason that there are no manufactories of textile goods in this district, such industry being confined almost entirely to the north and east of France.

COTTON AND COTTON-SEED OIL.

I doubt, also, if there would be a market for cotton seed, oil cake, cottolene, or other compound cooking fats made from cotton seed, unless thousands of dollars were spent by American manufacturers in advertising and pushing the same. The French are extremely fastidious in their cooking, and are highly prejudiced against American lard, which they claim to be inferior to the French article. Personally, I think the former quite equal in quality to the latter, but French ideas once established are changed only with the greatest difficulty.

AGRICULTURAL IMPLEMENTS.

In regard to agricultural implements, for instance, the Gallic farmer uses to-day the same sort of a plow that was employed by the ancient Romans; his scythe looks like some rude tool made by the aborigines, while modern improvements, as applied to dwelling houses, heating, etc., are quite unknown. The French peasant is behind the age, and strenuously resists all efforts to bring him up to date. I have known many American manufacturers to be impressed while traveling in France with the field apparently open to them for the introduction of their goods. But when, later on, they tried to introduce them, they found that few if any sales could be effected. I do not make these observations to discourage American producers, but merely with a desire to acquaint them with the actual condition of affairs.

CEREALS.

As to cereals, France depends in a great measure on the United States for her supply, the demand fluctuating in proportion to the quantity harvested in her own country. In 1894, for example, the wheat crop of France was very large, so that very little of that grain was shipped here from America. The contrary may be the case this year.

DOMESTIC ANIMALS.

There have been from time to time a few American cattle shipped to Bordeaux, but merely as an experiment. The prices paid did not cover the cost of transportation.

A first quality bullock sells in this market at $17 for every 100 kilograms, or 220.462 pounds, live weight; a second quality animal for $16, and a third quality for $15 per 100 kilograms. A first quality calf sells for $20, a second quality for $19, and a third quality for $18, for every 220.462 pounds. The price paid for sheep is identical with that paid for calves.

The price paid for first quality ham and bacon is 50 cents for 2.2 pounds.

Corned beef is 25 cents and lard 38 cents per 2.2 pounds.

No meats are canned in Bordeaux, though pâté de foie gras, game, and other delicacies are put up in tins and sold at rather a high figure.

LIQUORS AND DAIRY PRODUCTS.

Beer is sold at 26 cents a gallon, brandy at about $1 a quart, and pure wines at prices varying from 6 cents a quart to $20 a quart, according to age and quality. A fair, ordinary wine can be obtained for about 10 cents a quart.

The price of cheese is $32 for 220.462 pounds, and that of butter $28 for the same quantity.

Everything in France is sold by the metric system of weights and measures. Solid materials are sold by the kilogram (2.2 pounds) or by 100 kilograms (220.462 pounds). Smoking tobacco is sold at $2.50 for 2.2 pounds, or, say, $1.13 a pound. Flaxseed sells at $8 and clover seed at $32 per 220.462 pounds.

FRUITS.

The price of fruits in this market is about the same as in the larger cities of the United States, but fruits, as well as vegetables, can be preserved here more cheaply than in America, for the reason that labor is cheaper. Fruits preserved in sugar, however, are somewhat high in price, for the reason that sugar itself, from the fact of its paying a high internal-revenue duty, is dear. Most fruit packed here is put up in glass bottles and not in cans. As for preserved or canned fish, meats, etc., there has been for a long time past, there still is, and there will continue to be a market for certain American products. Canned salmon and lobster are sold here in large quantities and are very much appreciated, while I believe that a still larger business can yet be done in this direction.

SUGGESTIONS.

The proper way—in fact, the only way—for American producers to market their products in France is to send over a salesman or representative, or to select in France itself a traveling salesman to sell their goods. It is almost useless to write to retail dealers. The French, as before stated, are reluctant to accept anything that is new, and products of every description must in a certain measure be forced upon them. I doubt if the sale of American grain can be increased here beyond the demand, because the French naturally prefer to consume their own products; but I do believe that there is a market for cheese, canned meats, ham, bacon, lard, canned and dried fruits, and certain seeds. Money must necessarily be spent in advertising and introducing any one of these articles. As for tobacco, the French Government, which has a monopoly of its manufacture and sale, already buys a large quantity from the United States, sending a number of its agents over every year for that purpose. American cigarettes and smoking tobacco are also to be found in the larger French cities, but the duty on these articles is so high that their sale is comparatively limited.

There is a line of steamships running direct from New York to Bordeaux, so that facilities in this direction are already offered to American exporters.

I shall be at all times ready and willing to make suggestions to any persons desirous of opening up trade with this part of France. I think, however, that I have fully outlined the methods to be pursued in introducing American goods.

COGNAC.

(*Report of Mr. Frederick Fitz Gerald, consul at Cognac, France.*)

[The chief industry of Cognac is the distillation of the famous brandy to which the city gives its name, and of which it produces annually about 6,000 butts, or over 600,000 gallons. Population in 1872, 12,950; in 1891, 17,052.]

No direct importations of any importance are made into this consular district, as there are no important seaports. The territory is agricultural and largely self-supporting, and whatever is wanting is obtained from the seaports of Bordeaux and Havre.

Horses are bought in Normandy and Brittany, and are not imported; mules are bought from the Pyrenees, and sheep and cattle abound in the district.

Flour is obtained principally from the millers of Bordeaux, who import it in part. Oats are selling at $2 per 100 pounds, and corn at $2.50 per sack of 160 pounds.

Both cheese and butter of excellent quality are made in the district, and not imported. Some of it is obtained in Brittany.

Canned meats are easily obtainable at the adjacent seaports.

Cotton goods are procured from the great manufacturing centers in the north of France, such as Lille and Rouen.

Tobacco, being a monopoly of the Government, is not imported.

Canned fruits come from the large seaports, such as Bordeaux.

Liquors are produced in the district and are largely exported. Cider is obtained from Normandy and Brittany.

French seeds are preferred to those of other countries, and are not an item of direct importation. In the matter of agricultural implements, the farmers of this district still continue to use the primitive articles used by their forefathers. If they could be persuaded to use modern American plows, harrows, etc., it would undoubtedly save them much time and labor, but their prejudices are strong and they seem to prefer old methods in the cultivation of the soil, labor being cheap and their objection to a first outlay of money proverbial.

HAVRE.

(*Report of Mr. Cicero Brown, vice-consul at Havre, France.*)

[Havre, the second seaport of France (exceeded in importance only by Marseilles), is situated on the northwest coast, 143 miles from Paris. It possesses one of the finest harbors in the world, and one-fifth of the entire foreign commerce of France passes through it. Havre has shipbuilding yards, cannon foundries, sugar and oil refineries, flour mills, machine and dye works, and other industrial establishments. Its imports include cotton, wool, wheat, coffee, coal, sugar, hides, petroleum, and other raw products, and its exports wine, brandy, silks, ribbons, millinery, cotton and woolen fabrics, chinaware, and other French productions. Population: In 1876, 85,407; in 1891, 116,369.]

ANIMALS.

Cattle.—There is a large consumption of beef cattle, cows, and calves, the product mainly of the country, and the retail prices are about as follows: Roasting joints, 25 cents per pound; soup meat, 18 to 20 cents per pound.

Horses.—The horses used in this consular district are raised in the district. A choice draft horse, weighing in working order 1,400 pounds, is worth at the farm $250. A horse for a hack is worth about $100.

Sheep.—The sheep which are consumed in the consular district are raised in the district. The retail price of the whole carcass would be about 20 cents per pound.

Mules.—There are none raised or used in this district.

CEREALS.

Wheat.—The consumption of wheat is very large, and mainly of the product of the district. When there is a short crop the deficiency is mainly supplied from the Pacific Slope of the United States. The price is that prevailing in the United States, with the freight and $1.35 duty per 220.462 pounds added.

Corn.—In Havre and Rouen there is a small consumption of corn in the shape of feed for horses, and in the latter city a good deal of corn is distilled. It comes mainly from the River Plate in South America.

Oats.—The consumption is quite large, and the supply is mainly the product of the district. There are, however, importations from Norway and Sweden, especially in the case of a short home crop. There is practically no flour or meal imported into this district.

DAIRY PRODUCTS.

Butter and cheese.—The consumption of butter and cheese is considerable, and the supply is mainly the product of the district. There is, however, a moderate importation of cheese from Holland.

MEATS.

The meats consumed in this consular district are mainly produced in the district. The chief exception is mutton, which comes here in considerable quantity in the cold-storage chambers of steamers from the River Plate. Hams, bacon, and oleomargarine come from the United States in considerable quantities.

COTTON.

The importation of raw cotton is quite extensive, and is mainly from the United States. So far there has been little or no importation of cotton seed. Cotton-seed oil is imported in moderate quantity, wholly from the United States. The art of preparing it in that country is so superior that none but the American article can be sold. There is some

importation of cotton-seed oil cake, but the production of rape seed and the consumption of rape-seed oil in this district is large, so there is a full supply of rape-seed meal. There is a considerable importation of cottolene, or of the compounds of cooking fats into which cottolene enters.

TOBACCO.

Unmanufactured tobacco comes mainly from the United States. There is, however, some imported from Turkey and Sumatra.

FRUITS.

This consular district is essentially a fruit country. Apples abound, and there are two kinds, eating apples, as they may be called, and cider apples. The latter seem to the eye inferior, and to the taste they are disagreeable, but they make the best cider, which is in this district the drink of the people of all classes. From 1889 to 1892 there was a failure of the apple crop, which gave rise to a large importation of dried apples from the United States, from which the people made cider. There are some dried peaches and apricots regularly imported from California at a moderate price. It would seem that the consumption should increase. The consumption of imported canned fruit is limited. There are large quantities of fruit put up in glass in the interior and south of France. What in America are called English walnuts grow all over France, and are largely consumed. Chestnuts also are used, but they do not grow in this district.

LIQUORS.

Wines, mainly the growth of the south of France and of Algiers, are largely consumed. Brandy has the same source of supply. Cider is treated under the head of apples. Beer, mainly of light quality (light in alcohol), is made in the district. There are, however, moderate importations from Munich, Strasburg, and Great Britain.

SEEDS.

Some clover seed, mainly from the United States, is imported into this district.

Flaxseed.—There is some flaxseed raised in this district, but importations from India, Russia, and the River Plate are quite large.

NICE.

(*Report of Mr. Wilburn B. Hall, consul at Nice, France.*)

[Nice is a town on the south coast of France, 140 miles east by north of Marseilles, and 110 miles southwest of Genoa, Italy. It exports olive oil, wine, and silk, and its manufactures include artistic pottery, macaroni, perfumery, wax, and preserved fruits. Population: In 1872, 42,363; in 1891, 74,250.]

This consular district, embracing, besides Nice, the agencies of Cannes, Mentone, Monaco, and necessarily the outlying and adjacent towns where there are no agencies, contains no harbor of commercial importance. Villefranche is a resort of naval squadrons. Perhaps the lines of steamships which ply between New York and the Mediterranean may in time make use of its security and deep water, or the harbor of Nice, which is smaller, as a port of call. If so, this would create conditions which would increase largely the commercial relations between this part of southern France and the United States.

POSSIBILITIES OF INTRODUCING AMERICAN MANUFACTURES.

As stated in a former report (Extension of Markets for American Wheat, etc.), I regard the want of direct communication by large vessels running regularly as the only substantial reason why a mutually advantageous commerce between this part of southern France and the United States does not now exist. That such a commerce, once begun under favoring circumstances and fostered by the natural laws of trade and watched by the keen eyes of interest, would grow, is but to repeat history. The wine, oil, olives, and perfumery, besides many other products of industry of this part of France, would more rapidly seek exchange for our grain and other food products, as well as our manifold manufactures, which with us are articles of daily necessity. The large number of letters which I receive at all times from the United States inquiring as to the possibilities of introducing the various manufactures which the skill and ingenuity of our American manufacturers and inventors so abundantly supply to our home and other markets, indicates that only channels are needed through which to transact mutual and profitable exchanges of national wealth and industry. With these channels supplied and secured, including those other absolutely necessary conditions, such as agents of commercial houses actually on the ground to represent the interests involved, to give quick and reliable data to the houses represented, to show and explain samples, to advertise in French as they do at home in English, to quote prices, to note the conditions of supply and demand, and, in short, to keenly watch the conditions of trade here just as they do in other parts of Europe, this part of southern France would offer new and broad fields of supply to the products of American industry. And not only to merchants and exporters of agricultural supplies is this opportunity presented, but to the manufacturer, the inventor, and the purveyor of those numberless articles of common life which Americans

produce, and which the average American regards as a necessity in daily life. When I state that not one agent charged with the introduction of our wonderful sources of commercial or manufacturing or food industries, not one commission agent or house purely representative of American commercial interests, charged with pushing exchanges of our products, or of making known what doubtless could be so exchanged in this part of Europe, is known in this greatest of all foreign resorts, where all the world at certain times congregates, where the intelligent eyes of all lands and cities of high appreciation gather in their experiences of all nations and their resources, it is no longer strange, I think, that but little commerce relatively exists between this special part of Europe and the United States. Our people are too progressive, too energetic, and too sensible of the laws of trade to fail to appreciate these facts. I respectfully submit them to those who feel an interest in the matters of which I write, trusting that, the conditions being merely suggested, such steps may be taken by those who are interested, and who are eminently great in meeting with wisdom all conditions necessary to their own and the world's good. It would be strange fatuity which would lead a consul to imagine that he could create conditions of commerce by official action alone; he can only see where they exist and urge them upon those who have personal interests in the matter. And even then, as no man can be an expert in all matters, even a conscientious and educated consul earnestly desirous of serving his country and his fellow-citizens can not take the place of actual experts in the innumerable branches of trade and commerce whose interests make them ever keenly sensitive to the laws and conditions of their own special industry. The manifold interests of the industries of our country require that individual interest in each case should come to the front to engage actively in the great contest of a world's competition.

Besides the ports of Villefranche and Nice, already alluded to, there are the smaller ports of Mentone, Monaco, Antiles, Cannes, and others used by the Mediterranean coasting trade, by coast fishing smacks and yachts, besides other vessels bringing from the northern part of Europe coal, lumber, codfish, etc.

No direct importations of American goods have been received for years through the custom-house here. Such goods, when they do reach this part of France, are in no way known to the public as American, being received at other large French ports, where they are cleared. If such goods, then, reach this portion of the country at all, they come without being introduced as American, having been brought by dealers in other large commercial cities of France in the ordinary channels of internal trade, and are unknown as peculiarly the products of our country. The consumer and the general retail dealer make no inquiry as to the place where such goods are produced, or whence they come, whether from America or elsewhere, which fact necessarily tends to prevent special demands on the part of purchasers for goods as purely American.

THE CONSUMPTION OF FARM PRODUCTS.

There is a fair consumption of the products named, except canned meats, which have not as yet an appreciative demand, and raw cotton and cotton seed. There are no manufacturers of cotton or cotton-seed oil. The manufacture of tobacco in all forms and the regulations as to its sale are entirely subject to the laws of the Government here.

SOURCES OF COMMERCIAL SUPPLY.

Consumers in this district depend generally on the products of the country. The exception is wheat, which is imported, when the crops here necessitate, from Russia, Turkey, Algeria, and Roumania. It is well known that the wheat crops of France have been so increasing and abundant lately that she is now in the front rank among the wheat-producing countries of the world. Besides the large supplies of native wines which France produces herself, there are imported ordinary wines from Algeria, Spain, Greece, Italy, Tunis, and Turkey.

PRICES OF FARM PRODUCTS.

Imported wheat generally comes in bulk in ships. Buyers of cargoes resell in bags of 100 kilograms (220.462 pounds), the average price being 21 francs, equal to $4.05, free of all charge on the quay. Ordinary wines are imported in puncheons or butts of about 500 liters, equal to 132 gallons; price from 30 to 50 francs, equal to $5.79 to $9.65, per hectoliter, equal to about 26½ gallons, according to strength, color, purity, and other qualities.

Since American goods are not directly imported as such to my district, as explained above, sales and prices of such goods as purely American products could not be quoted with any degree of accuracy. However, I heard of a consignment of flour, which was cleared at Havre and came to Nice a few years ago (being sent by large mills in St. Louis), which was sold at that time for 35 francs, equal to $6.76, per 100 kilograms, equal to 220.462 pounds. This price was higher than that of other flours on the market at that time, the mean market price of the latter mentioned flours being 31 francs, equal to $5.98 per 100 kilograms. The American flour mentioned was, however, a very fine, white flour, which quality, as mentioned in my Report upon Extension of Markets for American Wheat, etc., is much appreciated here.

SUGGESTIONS.

As to the question, "Whether there are criticisms of any American products?" it will be seen from the conditions already mentioned of the way in which said products are introduced into my consular district that these products not being known as peculiarly American could not be subject to special criticisms as such. They would, of course, be bought and sold as those of other countries, according to quality and

price, depending entirely upon their merit and the natural laws of trade, without being known as specially American. They would, under the conditions mentioned before, find themselves here simply as unknown individuals in the great mass of other similar articles, either native or foreign, and are recognized by their own specific qualities without any knowledge as to their nativity, and are taken upon their individual merits, as are all others, dependent on their quality, price, and general ability to meet the competition to which all alike must be subject. That our American goods are ready to meet on their own merits in all markets the competition of the world appears to me to be too well known to even allude to the matter; but for that very reason what is American should always be known as such. It appears, therefore, that extending my observations generally, it is for the merchant and manufacturer to make his goods known as such in order to increase the demands for the products which incidentally find their way to this part of the world. Rivals in trade will not be interested in pointing out the merits of American goods. Systematic efforts, involving serious determination to meet competition, must be made. Markets abroad can thus be created which will give life to trade and industry in our own country, when otherwise the home markets would become stagnant through financial conditions due to overproduction. Our English cousins in their commercial relations appear to understand the conditions here, as they certainly do in other parts of the world's trade, and they act upon their knowledge of conditions. Should we not do likewise, and cease to depend too strongly upon our home markets? Great as this market is, and abundantly as it demands and consumes, repeated lessons of dullness and financial depression warn us that we should at least seek constant sources of new supply for the surplus of all the abundance of our national production. English merchants are ever alert, opening out new fields of foreign commerce, and extending their enterprises with energetic plans of action to explore, secure, and hold the trade lines of whole countries.

When such active energies are struggling to gain the avenues leading to the wealth of foreign commerce, it appears to me that American merchants and manufacturers, American inventors and capitalists, American energy and ingenuity will not long stand quietly awaiting those demands upon supply which others so eagerly seek, but that from the other side of the ocean they will come forward with their ability, skill, energy, system, and intelligence, and systematically introduce their wares to others on this side who would be ready to appreciate them and exchange their own in return. The distance is too great to be dealt with at arm's length; merchants and manufacturers and others must get nearer to the work here if they would accomplish greater results. Such results, I feel confident, will take place when, either by personal contact or by the means of proper agents, interested parties are brought together.

GRENOBLE.

(*Report of Mr. H. Clay Armstrong, jr., consul at Grenoble, France.*)

[Grenoble, 59 miles southeast of Lyons, is the capital of the department of Isère. Although it possesses other important industries, such as the manufacture of liqueurs (Chartreuse), perfumes, hardware, hats, and cement, 22,000 of its inhabitants, or more than one-third of the entire number, are employed in the manufacture of kid gloves in the 115 factories devoted to that industry. Population: In 1872, 35,280; in 1891, 56,878; or, with suburbs, 60,439.]

This consular district, being a peculiarly rich agricultural country, is nearly independent of other countries for its supplies of food stuffs, the only articles imported to any extent being wheat and cured meats.

WHEAT AND FLOUR.

As to wheat and flour, I have specially inquired as to the possibilities of introducing the American product. I find that American flour is much preferred, both for its flavor and color, though it lacks the nutritiousness of the Russian. The flour most preferred is a mixture of four parts American and one part Russian, thus combining the qualities of the two. But although American flour has this preference in the cities, its price, when delivered here, is too high to admit of its being a serious competitor.

As for reaching the country districts and peasantry with American flour, that is impossible, for the peasantry use little meat and much bread, and there being so much starch and so little gluten in American wheat flour, as compared with the flour made from wheat that is raised here from seed imported from Russia, they would not find it nutritious enough. The variety of wheat flour consumed among the country people corresponds more nearly, so far as richness goes, to our corn or maize meal.

Comparing the prices of American and Russian flour, so as to show the impracticability of American competition, it is only necessary to say that the American product of the preferred variety (red winter) costs at Marseilles, the nearest large flour market, about 15 cents per bushel more than Russian.

As a summary I would say that, though American flour and wheat would be preferred in the cities, or at least in Grenoble, at the present difference in prices it is not able to compete successfully.

MEATS.

Under the head of cured meats, the item of most interest to American producers or exporters is hams. Here the enormous price of 26 cents per pound is paid for "York" hams, an English brand, and a great many of them are used. I am prepared to say that these hams are not equal in quality to hams which sell in America for from 14 to 16 cents per pound at retail. There is one serious obstruction, however, to the importation of the latter to this country in anything except the largest quantities, and that is the meat-inspection law

which exists in France against American hog meat. The same discriminations are not made against English and Irish hams. I have had a case brought to my attention where an order for some $80 or $90 worth of hams was placed by an American resident here with a New York house, and owing to the fact that there was no official meat inspector at New York the goods were not permitted to enter. I am inclined to believe, however, that any wholesale house in America who might undertake the business could easily do a good trade with southeast France in hams or bacon. I have communicated with several large mercantile houses here that would be glad to handle these articles if they could get them.

I subjoin the amounts, with the prices of each article, used in the city of Grenoble, for all articles that I could obtain the statistics for. Grenoble, it should be remarked in this connection, is a city of about 65,000 inhabitants, and is both an industrial and small commercial center.

Statement showing quantities and prices of some of the principal products consumed in Grenoble, France, during the year 1894.

ANIMALS (SLAUGHTERED).

	Number.	Price per pound.
Bullocks	4,253	$0.18
Cows	2,667	.14
Calves	13,867	.18
Pigs	4,850	.14
Sheep	18,701	.17½
Lambs and kids	2,724	.21

CEREALS.

	Pounds.	Price per pound.
Corn and wheat	26,472,000	$0.01¾
Oats and barley	6,439,314	.01½
Flour and meal	17,648,000	.02¾

MEATS.

	Pounds.	Price per pound.
Fresh beef	106,360	$0.17½
Fresh veal	83,643	.17½
Fresh mutton	115,800	.17½
Fresh pork	112,987	.17½
Canned meat and fish	269,132	.22
Hams	49,635	.26
Bacon	143,390	.16

LIQUORS.

	Gallons.	Price per gallon.
Wines	2,522,643	$0.2618
Brandies	61,454	.7430
Beer	726,700	.3060

I can not, as a result of my inquiries, make any suggestions further than the foregoing that I think would be of practical benefit to producers or exporters of the articles specified.

RHEIMS.

(Report of Mr. Henry P. du Bellet, consul at Rheims, France.)

[Rheims, at once a city of great historic renown and great industrial and commercial importance, is situated 99 miles east-northeast of Paris. It is one of the chief centers of the French woolen industry and one of the principal entrepôts for the wines of Champagne. It has a large number of factories devoted to the manufacture of woolen and mixed fabrics. At least 10,000 people are employed in this industry, and over $17,000,000 worth of raw wool has been used in it in a single year. More than 2,000 men are employed in the manufacture of champagne, and there are also machine, chemical, candle, soap, glass, and paper works. Population: In 1872, 71,397; in 1891, 101,699.]

The quantity of agricultural products consumed by the city of Rheims can be taken as a safe criterion by which to estimate the total amount used by the 3,000,000 people inhabiting this consular district, the standard of living being very nearly the same in the different cities of the northeastern part of France, of which Rheims is the largest, with a population of 105,408 in 1894.

FRESH MEAT.

One of the most important products consumed is fresh meat, and the following statement, made out from official figures, shows the number of different animals, with their weight alive and dressed, which have been sold at the municipal slaughterhouse of the city of Rheims during the year 1894:

Months.	Oxen.				Cows.				Calves.			
	Number.	Average live weight per head.	Average dressed weight per head.	Total dressed weight.	Number.	Average live weight per head.	Average dressed weight per head.	Total dressed weight.	Number.	Average live weight per head.	Average dressed weight per head.	Total dressed weight.
1894.		*Lbs.*	*Lbs.*	*Lbs.*		*Lbs.*	*Lbs.*	*Lbs.*		*Lbs.*	*Lbs.*	*Lbs.*
Jan	265	1,302	701	185,977	525	939	469	246,015	824	259	154	126,896
Feb	243	1,302	701	233,831	499	937	469	233,831	745	253	152	113,091
Mar	322	1,326	715	230,230	442	981	491	216,845	869	253	152	131,914
Apr	274	1,324	715	195,910	448	977	488	218,803	887	268	160	142,452
May	382	1,324	715	273,130	341	1,014	508	171,096	885	295	176	155,760
June	497	932	501	249,295	252	933	466	197,754	784	264	158	124,185
July	543	943	508	275,952	228	911	456	103,831	919	255	152	139,504
Aug	476	963	519	247,359	319	880	440	140,360	865	255	154	133,211
Sept	389	902	545	212,238	285	952	475	135,432	627	259	156	97,937
Oct	309	1,262	679	210,058	320	946	473	151,362	635	286	171	108,966
Nov	353	1,256	677	239,192	356	988	492	175,437	701	273	163	114,123
Dec	319	1,258	677	216,154	301	996	496	149,657	659	253	152	100,036
Total	4,372	.....	.....	2,769,326	4,316	.....	.....	2,140,423	9,400	.....	.....	1,488,075

Months.	Sheep.				Hogs.				Horses.			Asses.			Mules.		
	Number.	Average live weight per head.	Average dressed weight per head.	Total dressed weight.	Number.	Average live weight per head.	Average dressed weight per head.	Total dressed weight.	Number.	Average dressed weight per head.	Total dressed weight.	Number.	Average dressed weight per head.	Total dressed weight.	Number.	Average dressed weight per head.	Total dressed weight.
		Lbs	*Lbs*	*Lbs.*		*Lbs*	*Lbs*	*Lbs.*		*Lbs*	*Lbs.*		*Lbs*	*Lbs.*		*Lbs*	*Lbs*
Jan	1,382	112	55	76,010	1,750	315	251	438,900	112	440	49,280	6	220	1,320	...	....	....
Feb	1,232	113	57	70,470	1,526	319	253	386,080	86	440	37,840	6	220	1,320	1	330	330
Mar	1,376	112	55	75,680	1,507	281	225	338,170	96	440	42,240	2	220	352	...	....	....
Apr	1,248	110	55	68,640	1,466	277	222	325,742	92	440	40,480	7	220	1,540	...	....	....
May	1,266	106	53	66,844	1,559	262	212	329,262	100	440	44,000	3	220	660	1	330	330
June	1,124	96	48	54,402	1,544	268	214	332,886	86	440	37,840	4	220	880	...	....	....
July	1,255	96	48	60,742	1,499	270	214	323,185	79	440	34,760	5	220	1,100	...	....	....
Aug	1,311	99	48	63,452	1,505	268	214	324,478	72	440	31,768	2	220	440	...	....	....
Sept	1,147	104	47	58,038	1,435	270	217	312,543	67	440	29,480	2	176	352	...	....	....
Oct	1,151	110	55	63,310	1,651	281	225	370,485	82	440	36,080	6	220	1,320	1	330	330
Nov	1,050	113	57	60,060	1,509	303	242	265,178	87	440	38,280	5	220	1,100	...	....	....
Dec	1,124	110	55	61,820	1,472	311	249	365,939	83	440	36,520	3	220	660	...	....	....
Total	14,666	....	....	779,468	18,423	....	....	4,212,848	1,042	....	458,568	51	....	11,044	3	....	990

In addition to the above live stock killed at the slaughterhouse, 438,336 pounds of beef, veal, and mutton and 975,515 pounds of pork were brought in by farmers and sold direct to the consumers, swelling the amount of meat retailed in Rheims in 1894 to 12,119,579 pounds, which, divided by 105,408, the number of inhabitants, represents nearly 115 pounds per head, 39.6 pounds of which is pork.

During the year 1893 the consumption of meat per head amounted to 136 pounds; in 1892 it amounted to 123 pounds, and in 1891 to 127 pounds. The average price per pound paid by the butchers during 1894 fluctuated. For oxen, between 13 and 14¾ cents; for cows, between 11½ and 14; for calves, between 9½ and 12½; for sheep, between 14¾ and 18; for hogs, between 10 and 11½; for horses, between 5 and 6; which the butcher retailed to the public as follows:

	Beef.	Veal.	Mutton.	Horse meat.	Pork.	
					Fresh.	Salted.
	Cents per pound.	*Cents per pound.*	*Cents per pound.*	*Cents per pound.*	*Cents per pound.*	*Cents per pound.*
Breast and sides	12½	15¾–17½	8¾–17½	4 – 8	14¾	16
Low ribs and neck	14 –15¾	19¾–21	8¾–17½	13½	16	.....
Ribs	14¾–17	22¾	8¾–22¾	8	17	.....
Hind legs	17½	17	22¾	3½– 6¾	16	16
Sirloin	24	22¾	22¾	10½–12¾	.....	.....
Tenderloin	35	22¾	22¾	14 –17½	17	.....
Tongue	17½	.....	*a* 5	*a* 19	16	.....
Kidneys	17½	35	3	*a* 4	17	.....
Brains	.....	8¾	6	11½	*a* 6	.....
Liver	10½	22¾	11½	7	14¾	.....
Shoulder	15½	21	21	13¾	14¾	14¾
Sweetbread	.....	35	.....	.....	.....	.....
Head and feet	6 – 8	8¾	*a* 13¾	.....	14¾	.....
Sausage	.....	.....	.....	10½–12¾	.....	12
Boudin and saucisson	.....	.....	.....	.....	28	35
Bacon:						
Fat	.....	.....	.....	.....	14¾	14¾
Medium fat	.....	.....	.....	.....	17	17
Bacon (breakfast)	.....	.....	.....	.....	.....	24½
Cheese	.....	.....	.....	.....	24½	.....
Lard	.....	.....	.....	.....	12½	.....

a Apiece.

Oxen are slaughtered at from four to seven years old, calves between six weeks and two months old; most of the horses turned over to the butchers are old, with the exception of those killed after meeting with an accident impairing their usefulness.

For meat of same quality, cow meat is retailed at 1 cent per pound less than ox meat.

During the calendar years 1892, 1893, and 1894 there have been imported into France from different countries and consumed therein:

Year.	Number of beeves.	Weight in pounds.	Value in dollars.
1892	18,442	14,938,436	966,892
1893	6,906	5,415,300	385,241
1894	164,082	131,381,322	8,925,656

The number, weight, and value of cattle of all kinds imported into France during the calendar years 1892, 1893, and 1894 were as follows:

	Number.	Weight in pounds.	Value in dollars.
1892	36,657	25,635,214	1,722,231
1893	20,308	13,880,448	944,934
1894	197,269	147,886,773	10,190,873

During the same periods sheep, exclusive of lambs, have been imported into France and consumed therein as follows:

	Number.	Value in dollars.
1892	1,400,114	8,546,896
1893	1,192,573	7,022,741
1894	1,990,987	11,403,480

The major portion of the imported beeves were brought:

From Algeria—
- In 1892 15,727
- In 1893 5,331
- In 1894 115,754

From Tunis—
- In 1892 91
- In 1893 518
- In 1894 10,265

From the United States—
- In 1892 170
- In 1893 201
- In 1894 18,406

From other countries—
- In 1892 2,454
- In 1893 874
- In 1894 19,657

The market of Rheims has been supplied with from 15 to 20 head of American cattle weekly, representing about 24 per cent of its beef consumption, which is a very large proportion of the United States importation to France, and our cattle are so greatly appreciated that they have generally commanded higher prices than the native animals.

The American ox weighs on an average when it reaches Rheims 1,320 pounds live weight, and when dressed it furnishes fully 739 pounds, or 56 per cent of meat.

From the end of March to the end of October the butchers receive most of their supplies from the departments of Nord and Aisne. The cattle from Franché-Comté and Charolais, with the few raised in the immediate neighborhood, complete the stock used for the city consumption.

ANIMALS AND MEAT.

What proportion of the total importation from the United States has been used in this consular district is difficult to ascertain, for the provincial markets are supplied mostly by the butchers of Paris, to which city all cattle are shipped direct; but, from the above figures, it is evident that this consular district, with a population of 3,000,000, has consumed greatly more than its share of the United States importation. Exceptionally, some small shipments are consigned to French western ports, whence, upon their landing, the animals in good condition are immediately forwarded to Paris, while those that have suffered from the trip are kept on the meadows adjoining the port until they are fit for market. For instance, during the latter part of 1894, of 400 oxen coming from Canada, having been landed at St. Malo, 100 were shipped to Paris and the other 300 remained in the surrounding pastures, whence they were to be forwarded to Paris as fast as they would recover the flesh lost during the trip across the Atlantic. At St. Nazaire a shipment of 100 oxen from the United States was received about the same time.

Cattle.—The enormous increase in the importation of cattle from the United States in the year 1894 over that of previous years was the result of the severe drought throughout France in 1893, which, depriving the stock raisers of the feed necessary for the sustenance of their animals, forced them to greatly reduce their herds by slaughtering them before they had fully matured, thus leaving a deficit to be supplied. The greatest efforts are now being made to prepare for the recurrence of such a calamity in the future, and it is more than likely that the thrifty and provident rural population of France will heed the cruel lesson and benefit by it.

Should hay continue to be stored away during years of abundance to provide against droughty seasons, and should the numerous petitions now being signed by the farmers and stock raisers requesting the French Government to follow the example of Belgium, Denmark, and Germany and take such measures as would be equivalent to the pro-

hibition of American cattle be effective, it is evident that the importation will not be restricted merely, but entirely stopped.[1] Such a condition of things would seem to be possible for a time only, for, statistics showing a continued increase in the demand for meat in the French cities corresponding with the alarming depopulation of the rural districts, it is natural to foresee the day when the supply (even at the actual high prices which are prohibitive for the poor), becoming absolutely inadequate, will lead the Government to protect the many against the few, and, in throwing open the ports of France to the importation of the cheap and highly prized cattle of the United States, secure to the laborer the possibility of purchasing meat, which is rightly considered now as an article of luxury.

Transportation.—The cost of transportation by rail from Boulogne-sur-Mer, the nearest port to Rheims, distant 283 kilometers, or 175.8 miles, is by car loads as follows:

	Capacity of car.	Transportation charges in—	
		Francs.	Dollars.
	Head.		
Beeves	10 to 12	140.50	27.03
Calves	25 to 30	140.50	27.03
Hogs	32 to 35	140.50	27.03
Horses	10	140.50	27.03
Sheep	60 to 64	100.60	19.42

The time consumed in the trip does not exceed thirty-six hours. It may not be uninteresting to state that the blood of all animals slaughtered is carefully saved and sold at the rate of 9 cents per head. Hogs' blood is used to make the renowned and popular sausage called "boudin." From the steers' and cows' blood the albumen which is used by dyers to fasten colors is separated and forwarded to Havre, where it is prepared for sale. The balance of the blood is converted into a fertilizer of great value on waxy lands. The sheep's blood, being too dry, and the calves' blood, too weak, do not furnish any albumen, and are used only as fertilizers.

Refrigerated meat was once used in Rheims in comparatively large quantities; the experiment lasted about six months, but failed to give satisfaction, and is now entirely abandoned. The defect charged was that as soon as exposed to the air and removed off the ice the meat in thawing would lose its neat appearance, look greasy, and spoil rapidly, even in winter. Australia and New Zealand are, however, shipping extensively refrigerated meats to Great Britain. The *Perthshire* was reported to have reached London a few months ago with 70,000 sheep and 16,000 quarters of beef on ice. Part of this cargo was forwarded

[1] The French minister of agriculture, yielding to the clamors of the stock raisers, has just issued a decree forbidding the entrance into France of American cattle. The reason given is the prevalence of Texas fever and pleuropneumonia.

to Vienna, which it reached in perfect state of preservation and sold for 13 cents per pound.

Canned meats are in very little demand in this district, and are kept in stocks by but very few dealers, and in very small quantities. No one seems to be interested in pushing these goods before the public, which generally ignores what they are and feels no inclination to experiment for fear of disappointment, which would certainly result should they be moved by curiosity and open one of the few shopworn, fly-specked, and aged meat cans concealed in some hidden corners of one or two of their stores. Should they be made acquainted with the quality of the goods, and should the retail price of these meats be lowered enough to make them really cheaper than fresh meat, no doubt that the consumption of these articles, especially the tongues (French people as a rule do not like corned beef), would increase rapidly, to the great benefit of our exporters, as they would meet with no competition on this market.

American corned beef is priced at 19 cents per 1-pound can; ox tongue, 73 cents per 2½-pound can; hog (lunch) tongue, 41½ cents per 1-pound can and 67½ cents per 2-pound can. No other kind of canned meats is known or sold on this market.

Horses.—There are in France 3,000,000 horses, valued at 1,361,000,000 francs, or $263,000,000. From 700,000 to 800,000 are used in the cities, 140,000 to 150,000 are owned by the army, and the balance is employed in the fields. The number of horses kept in the towns and cities is getting larger every year, and has even exceeded in late years the notable accretion to the urban population; this increase can only be accounted for by the very numerous horse-car lines opened in every town of the territory, electric, cable, and other new systems of locomotion being only in the stage of experiment.

The city of Paris, which before 1870 owned 70,000 horses, had in 1894 as many as 120,000.

But very few horses are raised in this district, with the exception of the Ardennes region, which supplies the limited need of this surrounding country, given mainly to the cultivation of the grape. The "Ardennais" stands 5 feet 3 inches to 5 feet 6 inches high, sells at from $200 to $300 between 4 and 7 years old, and is used indiscriminately for all city and country purposes. Belgium and the provinces of Normandie and Picardie furnish some horses to this district, but no importation from the United States has reached this market for six years past.

The war department contemplates buying during the year 1895 in France and Algeria for the French army 12,487 geldings and mares, to be dark in color, from 4 to 8 years old and from 4 feet 9 inches to 5 feet 1 inch high for the cavalry, from 4 to 8 years old and from 5 feet ¾ inch to 5 feet 2 inches high for the artillery, and from 5 to 8 years old and from 4 feet 10 inches to 5 feet ¾ inch for the infantry.

The "Haras Nationaux," the French Government horse-breeding establishments, on January 1, 1894, owned 2,668 stallions, composed as follows:

English pure blood	195
Arabs	87
Anglo-Arabs	207
Half blood	1,806
Draft	373

In compliance with the law of January 26, 1892, to these animals are to be added 50 more every year until 1900. During the year the number of colts sired by these Government stallions was estimated at 126,900. The importation of foreign horses into France has progressively decreased during the last fourteen years, while the exportation of French horses to foreign countries has increased.

Importations:	
1880	25,524
1893	15,269
Exportations:	
1880	9,628
1893	24,121

The value of horses exported in 1893 was $4,199,651, and the value of horses imported in 1893 was $3,501,300. Belgium purchased the largest number, 13,000; then Germany, 6,430, and Switzerland, 2,474.

Mules.—No mules are used or raised in this consular district.

WHEAT.

France consumes yearly 340,000,000 bushels of wheat. Since the year 1874, which was an exceptional one for the abundance of its wheat crop, to wit, 386,943,627 bushels, the home supply, with the exception of the 1882 crop, amounting to 346,610,624 bushels, has always been inferior to the demand, until 1894, when the wheat harvest produced 343,345,391 bushels, or a little more than needed, instead of the average 298,732,000 bushels of the last ten years. This fact, coupled with the large foreign importation which took place prior thereto, and in view of the additional duty lately imposed by France, explains why very little exportation, if any, is expected from foreign countries this year.

During the years 1891, 1892, 1893, and 1894, the United States imported into France nearly three-fourths as much wheat as all other countries combined, as will be seen by the following figures, which represent quintals of 220.462 pounds:

	1891.	1892.	1893.	1894.
United States	8,155,595	10,062,892	2,876,386	3,233,020
Other countries	11,446,329	8,779,478	7,155,343	9,257,977
Total	19,601,834	18,842,370	10,031,629	12,490,997

The preference given to our wheat is due to the fact that it is not only better in quality, but is cleaner than the others. The wheat from other countries has to be subjected, before it can be ground, to a very expensive process of washing, requiring a special installation which most millers can not afford; and for this reason alone, independently of all others, our wheat often commands 30 cents per 220.462 pounds more than the others. Wheat which costs the French farmer to raise from 23 to 24 francs ($4.44 to $4.63) now sells at from 17 to 17.75 francs per quintal ($3.28 to $3.43 per 220.462 pounds).

The new additional duty on wheat failing to give the desired and expected relief, and rather than abandon its cultivation or continue to raise it at a loss, some prominent agriculturists, after devoting a good deal of thought and time to the solution of the very perplexing problem, have sought to convert wheat into meat by giving it in the shape of bread to their stock. Mr. Grea, the leader in this move, and a very competent man on all questions relating to agriculture, after two years' experiment, reported before the agricultural congress recently held at Lyons the practical success of the theory advocated by him. He said that the daily ration of an ox containing 6.6 pounds of bread costs 9 cents less than the usual ration of hay and oil cake, while it hastens the development of the animal, increases the quantity of the meat, and improves its quality. The bread he has been feeding is made with nonsifted flour, to which are added rye and barley, and experience has proved that the cooked and fermented flour is more profitable than the raw. The bread, after being cut in pieces, is made wet with warm water containing bran, and 6.6 pounds of it are added to the 26.4 pounds of other less nutritious feed, which is necessary to make up the volume required by herbiverous animals. Thus made, the bread costs a little less than nine-tenths of 1 cent per pound, and Mr. Grea and his friends estimate that the farmers in converting their wheat into meat can realize from it from $5.40 to $5.79 per 220 pounds, and consequently secure a profit justifying the trouble and expense of raising it, at least as long as the actual market price for beef prevails.

Flour.—Very little if any wheat flour is imported into this consular district from any country, the millers claiming that in importing wheat and grinding it they find the double advantage of obtaining a flour of better quality than is made in the United States and foreign countries and at less cost.

Wheat flour sells now at from $5.02 to $5.21 per 220 pounds.

Oatmeal not more than cornmeal is known to the people of this country, and it naturally follows that there is here no market or demand for these articles of consumption; occasionally, however, in fancy grocery stores, cornmeal can be found and is retailed at 6.9 cents per pound.

Corn.—Corn does not mature in France, and the small quantity which is planted is cut green and used for fodder. Some corn, however, is

used in this district for feeding cattle and hogs, but its consumption is so small that no direct importation is made to any place in this region. The small quantity which is sent here comes from Paris, and nothing else is known about its place of origin.

The price of corn is $2.70 per 220 pounds; oats, $3.12; barley, $2.70; rye, $2.02; bran, $1.93; wheat straw, $4.24 per 1,100 pounds; rye straw, $3.66; oat straw, $2.89; natural hay, $8.87; clover, $7.72; starch, $11.58 per 220 pounds.

FRUITS.

American canned fruits, if there are any in this district, are very difficult to find, but French brands are numerous and have a good sale. Fruits are put up in their own juice, in sirup, or in brandy, and are contained in cans and glass bottles. They are retailed as follows:

		Cents.
Cherries (natural state)	per quart	25
Small yellow prunes (mirabelles) (natural state)	do	18
Pineapple (natural state)	per box	29
Cherries (in sirup)	per small jar	25
Raspberries (in sirup)	do	25
Gooseberries (in sirup)	do	25
Plums (Reine Claude) (in sirup)	do	26
Apricots (in sirup)	do	26
Plums (mirabelles) (in sirup)	do	27
Strawberries (in sirup)	do	29
Pears (in sirup)	do	30
Quinces (in sirup)	do	30
Peaches (in sirup)	do	40
Walnuts (in sirup)	do	40
Pineapples (in sirup)	do	33
Cherries (in brandy)	do	43
Plums (in brandy)	do	62

Dry fruits are retailed as follows: Almonds, from 21 to 26 cents per pound; hazelnuts, 12 cents; figs, from 5 to 17 cents; prunes, from 5 to 21 cents; apples, 14 cents; pears, 15 cents; raisins, from 10 to 27 cents.

LIQUORS.

The vineyards of France, which cover an area of 4,366,040 acres, being a diminution of 62,348 acres, caused by the destruction of vines by the phylloxera, produced 236 gallons of wine per acre in 1894, being 180½ gallons per acre less than in 1893.

For the year 1894 the vintage is estimated at 39,052,800 hectoliters, or 1,031,657,818 gallons, having yielded 11,017,000 hectoliters, 291,036,089 gallons, less than in 1893, but showing an increase of 8,778,000 hectoliters, or 231,888,426 gallons, on the average of the last ten years' production. By adding to the above figures the yield in Corsica and Algeria, a total vintage for France and her colonies is reached of about 1,136,000,000 gallons.

According to the different local statistics the total value of this year's crop is estimated at $179,000,000, to wit: $16,000,000 for 27,000,000 gal-

lons of wine of first quality, selling in the cellars of the owners at over $11.58 per 26.417 gallons, and $163,000,000 for 1,004,000,000 gallons of wines of ordinary quality.

As will be seen by the following comparative statement of the wine produced by the different European states in 1893 and 1894, taken from the Bulletin de Statistique et Legislation Comparée of France, February, 1895, France is the largest producer, and in nearly all countries the year 1893 was more productive than the year 1894:

	1893.		1894.	
	Hectoliters.	Gallons.	Hectoliters.	Gallons.
France	50,069,800	1,322,693,907	39,052,800	1,031,657,818
Algeria	3,937,100	104,006,371	3,642,000	96,210,714
Tunis	140,200	3,703,663	178,900	4,726,001
Italy	32,163,500	849,663,179	24,500,000	647,216,500
Spain	25,100,000	663,066,700	24,000,000	634,008,000
Portugal	1,900,000	50,192,300	1,500,000	39,625,500
Azores, Madeira, Canary	120,000	3,170,040	120,000	3,170,040
Austria	3,000,000	79,251,000	4,000,000	105,668,000
Hungary	939,987	24,831,637	2,095,587	55,359,122
Germany	5,400,000	142,651,800	5,000,000	132,085,000

Average yield.

	Hectoliters.	Gallons.		Hectoliters.	Gallons.
Russia	3,500,000	92,000,000	United States	950,000	25,000,000
Turkey and Cyprus	1,800,000	48,000,000	Argentina	1,200,000	32,000,000
Bulgaria	1,500,000	40,000,000	Chile	900,000	24,000,000
Servia	1,800,000	48,000,000	Brazil	400,000	11,000,000
Greece	1,300,000	34,000,000	Cape of Good Hope	92,000	2,400,000
Roumania	1,100,000	29,000,000	Persia	29,000	760,000
Switzerland	1,800,000	48,000,000	Australia	120,000	3,200,000

The yearly consumption of wine and alcohol per person throughout France varies greatly according to the kind of life, the occupations of the people, and the climate under which they live. The ministry of finances, which corresponds to our Treasury Department, has lately caused the quantities of wine and alcohol used in French cities the population of which exceeds 30,000 to be compiled. The result of this work, embracing forty-seven cities, shows how greatly the yearly consumption of wine and alcohol per head in the principal cities of this country varies; and the difference in centers not very far apart is certainly striking, as evidenced by the following statistics concerning the most important towns of this consular district:

City.	Wine.	Alcohol.
	Gallons.	*Gallons.*
Rheims	40½	2¼
Troyes	51½	1¾
Nancy	45¾	1½
St. Quentin	10½	2½

Nice, which consumes the largest quantity of wine per capita, i. e., 64 gallons, uses very little alcohol, i. e., $1\frac{1}{5}$ gallons. Cherbourg, which heads the list of alcohol consumers with $4\frac{3}{4}$ gallons per capita, is among the smallest users of wine, i. e., $12\frac{6}{10}$ gallons. These statistics seem to confirm the often repeated assertion that where the most wine is drunk the least appetite for distilled liquors exists.

Wine growers in the Champagne district have been greatly disappointed since the last vintage by reason of their failure to secure a reasonable price for their grapes and wine. Grapes which were sold at $38.60 per caque (a caque equals 132 pounds) in 1889 were hard to sell in 1894 at from $4.82 to $6.17 per caque, and the same peasants that but a few years ago obtained as much as $270.20 and $328.10 per 52.82 gallons for their newly pressed wine are glad to dispose of their 1894 vintage at $48.20 per 52.82 gallons. It is universally acknowledged that the quantity of the 1894 crop is inferior to that of the years 1889 and 1893, but the difference in quality is not in proportion to the difference in price. The reason lies in the decreasing exportation to foreign countries, caused by higher tariffs and financial perturbations, coupled with overstocked cellars, one of the largest firms having 16,000,000 bottles on hand. Unwilling, and in some cases unable, to buy the grapes for the purchase of which they used to have such a lively competition, the wine merchants have left them this year on the hands of the peasant growers, who, in self-defense, had to convert them into ordinary wine. The result has been an abundance of native wine on the market such as had not been witnessed in a number of years, and the continual complaint of the disabused peasant, who awakens from the dream into which the competition of the champagne merchants had lured him to find his vineyards threatened by the invasion of the dreaded phylloxera, noticed for the first time in the Champagne district on the 6th day of August, 1890. The progress of the insect is so vigorously fought and impeded that on an area of 34,580 acres, being the surface covered by the Champagne grapes proper, only 21.48 acres have been destroyed in the last five years. This magnificent result is due greatly to the combined and indefatigable efforts of a few intelligent owners, who, strange to say, have had and have yet to contend with the ill-will and suspicions of the ignorant peasants, who systematically oppose the work of preservation, believing or pretending to believe that the phylloxera is only a pretext invented by the rich landlords in order to destroy the small vineyards and force their owners to sell out to them. The loss of such a very small acreage has, however, been more than compensated by the addition in the Champagne district of about 395 acres lately laid out in young vines, and on lowland until recently believed unfit for the cultivation of the precious and renowned plant.

The 34,580 acres of Champagne vineyards are valued at $23,932,000. The following statistics, compiled by the Chamber of Commerce of Rheims for the last nine years, show the variations of the business

since 1886 and the actual magnitude of the champagne wine trade. In 1844, it is worth remembering, the gross total of trade amounted to only 6,000,000 bottles, of which 2,000,000 were consumed in France and 4,000,000 in foreign countries.

Years.	Quantities in merchants' stock April 1 in each year.	Equivalent in gallons.	Gallons in wood.	Total quantity in gallons.	Quantities exported.
	Bottles.				*Bottles.*
1885-86	83, 366, 953	17, 618, 852	8, 601, 444	26, 220, 296	14, 923, 490
1886-87	82, 925. 678	17, 525, 164	6, 928, 241	24, 453, 405	16, 222, 903
1887-88	75, 218, 074	15, 896, 277	7, 961, 071	23. 860, 348	17, 257, 685
1888-89	75, 573. 232	15, 963, 987	5, 114. 772	21, 078, 759	18, 904, 469
1889-90	63, 796, 719	13, 482, 542	9, 674, 757	23, 157, 299	19, 148, 382
1890-91	60, 273, 995	12, 738, 065	10, 562. 908	23, 300, 973	21, 699, 111
1891-92	69, 218, 464	14. 628, 350	10, 535, 566	25, 163, 916	19, 685, 115
1892-93	65, 583, 077	13, 859. 068	12, 624, 887	26, 483. 955	16, 600, 678
1893-94	86, 771, 994	18, 338, 050	17, 470, 110	35, 808, 160	17, 359, 349

Years.	Shipments to wholesale merchants, retail and consumers in France.	Total of shipments abroad and in France.	Shipments from merchants to merchants in the department (county).	Grand totals.
	Bottles.	*Bottles.*	*Bottles.*	*Bottles.*
1885-86	2, 752, 184	17, 675, 674	3, 224, 738	20, 900, 412
1886-87	2, 861, 971	19, 084, 874	3, 316, 144	22, 401. 018
1887-88	3, 076, 639	20, 334, 324	4, 986, 654	25, 320, 978
1888-89	3, 653, 615	22, 558, 084	7, 116, 970	29, 675, 054
1889-90	4, 176, 189	23, 324, 571	4, 759, 544	28. 684, 115
1890-91	4, 077, 083	25, 776, 194	8, 386, 571	34. 162, 765
1891-92	4, 558, 881	24, 243, 996	13, 375, 201	37, 619, 197
1892-93	4, 487, 535	21, 088, 213	5, 333, 323	26, 421, 536
1893-94	4, 876, 518	22, 235, 867	4, 011, 597	26, 247, 464

The city of Rheims has received in 1894 from the Burgundy, Bordeaux, and southern districts 122,500 hectoliters, or 3,236,082 gallons, of wine, worth from 8 cents upward per bottle.

During the same year 7,631 hectoliters, or 201,588 gallons, of pure alcohol (96°), sufficient to make about 18,314 hectoliters, or 483,801 gallons, were brought into this city and sold as follows: Wine alcohol, 3 francs, or 58 cents, per liter, or a little less than a quart; grain alcohol, 1.80 to 2.10 francs, or 35 to 41 cents, per liter; beet alcohol, 30.50 francs, or $5.89, per hectoliter, or 26.417 gallons.

The price of beet alcohol has so greatly fallen that a great many distilleries which had lately been manufacturing at a loss are suspending work one after the other. To be remunerative, the price of 90° alcohol ought not to be inferior to 40 francs, or $7.72, per hectoliter, or 26.417 gallons. For a certain number of years it fluctuated between 40 francs, or $7.72, and 50 francs, or $9.65. Fifteen days ago it dropped to 29.50 francs, or $5.69. The cause of this fall is attributed to a superabundance of common alcohol, caused not by an overproduction of beet and grain alcohol, which has been inferior to that of preceding years, but to the lack of sales, the consumers of brandies in small towns and rural districts buying, it is claimed, direct from private owners, part of

the home-distilled spirits the law authorizes them to make for their own use, which the latter (known as "bouilleurs de cru") retail and fraudulently deliver to the consumers and small merchants doing business in localities not immediately under the eyes of Government revenue officers. The immediate result of the abuse by the "bouilleurs de cru" of their privilege is estimated to yearly defraud the Government of 156,000,000 francs, or $30,000,000, the tax being 156.25 francs, or $30.16, per hectoliter of alcohol, or 26.417 gallons.

The question of the suppression of this privilege is now before the legislature, and is warmly demanded and defended by the opposing interested parties. Meanwhile, at Soissons a distillery producing more than 400 hectoliters (10,567 gallons) per day has just closed its doors, and the 30,000 tons of beets which it bought yearly for distillation will be left this year on the hands of the peasants, who will likely in the future, and until this crisis is over, abandon beet culture and turn their attention to the cultivation of oats, barley, spring wheat, potatoes, etc. In the Departments of Nord and Pas de Calais the same condition of things exists, and it is reported that eight distilleries, producing together and daily 1,150 hectoliters (30,379½ gallons), have and are about to suspend work.

There is no importation of brandy or alcohol to this consular district from foreign countries.

Cider.—The cider made in France in 1894 amounted to 15,541,051 hectoliters (410,547,944 gallons), being an increase of 2,121,710 hectoliters (56,049,213 gallons) over the average of the last ten years, the production of 1893 excepted, which was an exceptionally good year. In the Departments of Côte d'Or, Doubs, Jura, Haute Marne, Haute Saône, and Vosges, where the production of wine has decreased, that of cider has increased. Rheims alone received during last year 7,700 hectoliters (203,000 gallons), worth 30 francs, or $5.79, per 52.82 gallons.

There is no importation of cider to this consular district from foreign countries.

Beer.—The yearly consumption of beer in France is 15,000,000 hectoliters (396,000,000 gallons). The imports amount to about $2,000,000 worth, while the exports equal nearly 25 per cent of the imports. During the first ten months of 1894 the exports reached the value of 2,081,440 francs ($491,718), equivalent for the whole year to 2,500,000 francs ($482,500). One hundred thousand hectoliters, or 2,600,000 gallons, represent the importation from Germany—that is, hardly 0.26 gallon for every 150 liters, or 39.6 gallons, consumed in France. The consumption of beer in Rheims in 1894 amounted to 39,700 hectoliters (1,048,755 gallons), 33,000 hectoliters (871,761 gallons) being made in the city and 6,700 hectoliters (176,994 gallons) imported from the surrounding Departments of Ardennes, Meuse, and Aisne. It is claimed that there is no foreign importation to this city. Beer is worth from 12 to 30 francs ($2.32 to $5.79) per 26.42 gallons.

Brewers are the only persons here supposed to use glucose, but as they all deny the charge and claim perfect ignorance of the article or anything concerning it, all information that could be obtained is that it is worth from 35 to 40 francs ($6.75 to $7.72) per 100 kilograms, or 220.462 pounds.

TOBACCO.

The state having the monopoly of the tobacco trade, buys, manufactures, and sells every ounce of tobacco and every cigar used in France, with the exception of the very few direct importations made by and for the benefit of private individuals from the different tobacco-growing countries, and most especially from Havana. Hence statistics on the consumption, importation, and prices of this product are of little interest to our tobacco raisers or dealers, who, if they sell at all to France, must of necessity deal with the French Government through its special representatives, and by reason of the lack of competition must take or refuse the offers it may be pleased to make them.

The tobacco most generally used is the "caporal" long cut, selling at 0.50 franc, or 9½ cents, per 40 grams (1.4 ounces). The better quality of "caporal" sells at 0.80 franc (15½ cents) per 50 grams (1¾ ounces). The Maryland and Virginia tobacco is sold at 0.80 franc (15½ cents) per 50 grams (1¾ ounces), and the Turkish tobacco 1 and 1.25 francs or 19.3 cents and 24.6 cents per 50 grams (1¾ ounces). Snuff of all kinds is worth 1.60 francs (30.9 cents) per 100 grams (3½ ounces), and chewing tobacco 1.60 francs (30.9 cents) per 100 grams (3½ ounces).

The cheapest cigar is sold at 1 cent and the dearest at 1.57½ francs (30.4 cents) in boxes of four cigars. No tobacco is grown in this consular district.

COTTON.

There are a few cotton mills at St. Quentin, in the Department of Aisne, and also some in the Department of Vosges, but very little cotton, if any, is shipped there direct, most of their raw material being supplied by Rouen and Lille.

Owing to the systematic refusal of the chambers of commerce and manufacturers to answer any questions on this subject, complete and useful information could be secured only with time and the exercise of watchfulness, patience, and perseverance.

As to the consumption of cotton seed, cotton-seed oil, oil cake, cottolene, or other compound cooking fats made from cotton seed, it is to be inferred from the total ignorance professed by everyone questioned on this subject that these products have not yet made their appearance in this region. The oil cake mentioned in reference to the feed given to stock is called "tourteau" and contains not a particle of cotton seed, being made by the farmers with the refuse of hemp, flax, and other European oleaginous seeds sold by the oil factories.

DAIRY PRODUCTS.

Butter and cheese are made in this consular district, but not in sufficient quantity to supply the demand. Although this butter retails at the same price as Brittany and Normandy butter, it is considered inferior in quality to the latter, which is shipped here in large quantities, and is worth from 1.70 francs, or 32.8 cents, to 2.50 francs, or 48½ cents, per one-half kilogram, or 1.1 pounds.

Butter.—Butter being admitted in this city free of "octroi" duty, there is no record kept of the amount shipped here, and consequently no statistics can be given as to its origin and consumption. In the cities the annual consumption of butter (margarine not included) amounts to nearly 8 kilograms (17.6 pounds) per head.

Belgium, Italy, Holland, and Germany are large importers into France of fresh and salt butter, and the United States, which for the first time in 1879 exported to this country 185,000 kilograms, or 408,000 pounds, salt butter, is considered a dangerous competitor in this line on the French market.

The most renowned butters (not salted) are made at Isigny and Gournay, in Normandy. The sales of the first exceed 4,250,000 kilograms, or 9,370,000 pounds, averaging 3.57 francs per kilogram, or 31¼ cents per pound, while the latter's sales attain 2,450,000 kilograms, or 5,401,000 pounds, averaging 3.13 francs per kilogram, or 27.4 cents per pound.

It is generally at the end of the winter (in March and April) that the producers ship to the "Halles" central market at Paris their unsold stock of melted and salted butter, where, however, but very little is marketed at any time of the year.

Cheese.—In no country in the world can so many varieties of cheese be found as in France; they number about 600 and are made with the milk of cows, goats, ewes, and of goats and ewes mixed.

They are classified under two heads—viz, the fresh or soft and the dry or firm cheese.

The best known specimens of the first class are the "fromage blanc," or white cheese, and the "fromage à la crême," or cream cheese, both made in all parts of the country, and retailing here at 0.20 franc, or 3.9 cents, and 0.30 franc, or 5.8 cents per pound.

Normandy furnishes the double cream cheese, or "petit suisse," made at Gournay; the "bondons," of Rouen; the "Camembert," the "Livarot," and the "Pont-l'Évêque," of Calvados. The "Marolles" comes from the Department of Nord; the "Coulommiers" from Seine-et-Marne; the "Münster" from Alsace; the "Mont-d'Or" (made with goat milk) from Rhone, near Lyons, while this consular district produces the "Géromé," made at St. Dié and Remiremont, in the Department of Vosges, and the "Brie," made in the Departments of Aube, Marne, Aisne, Seine-et-Marne, and Seine-et-Oise.

Among the leading varieties of the second class are the "fourmes," or "fromage d'Auvergne," made in the Department of Cantal; "Roquefort," made only at Roquefort, in the Department of Aveyron, with ewes' milk; "Port du Salut," originally made at the abbey of La Trappe du Port-du-Salut, near Laval, Mayenne, and "Gruyère," better known in the United States as Swiss cheese, originally made at Gruyère, near Fribourg, in Switzerland, but now also prepared in France in many Departments adjoining the Swiss frontier, such as Ain, Doubs, Haute-Saône, Yonne, and Jura. The principal foreign products sold on this market are the "Holland," or "Edam," the "Chester," from England, and the "Parmesan," from Lombardy, Italy.

The retail price in Rheims of each of the following cheeses is:

Variety.	Price per pound.	
	In francs.	In cents.
Petit suisse	0.20	3.9
Bondons	0.20	3.9
Marolles	1.00	19.3
Camembert	0.55–0.80	10.6–15.4
Livarot	0.70	13.5
Pont l'Evêque	0.75	14.5
Coulommiers	0 65	12.5
Brie	0.45	8.7
Mont d'Or	0.40	7.7

The "Fourmes" retails at 0.80 franc (15.4 cents) per pound, and the wholesale prices of the following are:

Variety.	Price per 100 kilograms (220.462 pounds).	
	In francs.	In dollars.
Géromé	120	23.16
Münster	130	24.09
Holland	120	23.16
Roquefort	250	48.25
Gruyère Swiss	200	38.60
Gruyère French	180	34.74
Port-du-Salut	200	38.60
Parmesan	600	115.80

France exports to Algeria, Spain, Turkey, Egypt, South America, and her colonies about 8,000,000 francs', or $1,500,000, worth of cheese, but imports about 20,000,000 francs', or $3,860,000, worth.

The yearly consumption is estimated at 3,133 grams, or 6.91 pounds, per head, consisting of 2,810 grams, or 6.19 pounds, of fresh or soft cheese, and 323 grams, or 0.71 pound, of dry cheese.

LIMOGES.

(*Report of Mr. Walter T. Griffin, commercial agent at Limoges, France.*)

[Limoges is the capital of the Department of Haute Vienne and the eighteenth city in population in France. It is situated on the upper course of the Vienne River, at a distance of about 220 miles south of Paris and 88 miles west of Clermont. It is a city of great antiquity, having been the capital of a Celtic tribe prior to the occupancy of Gaul by the Romans. Its manufactures include worsted, broadcloth, cassimere, flannel, and other woolen fabrics; calico, napkins, porcelain, tapers, paper, wire, and cutlery. It has numerous printing presses and an extensive trade in books, as well as chestnuts, wine, brandy, and other liquors, salt, iron, brass, enamel, kaolin, etc. Limoges is the entrepôt for the trade of Toulouse and generally for the south and southwest of France. Population in 1886, 68,477; in 1891, 72,697.]

AMERICAN PRODUCTS MARKETABLE IN FRANCE.

A mistaken idea has gained ground in many manufacturing circles of the United States, and has unfortunately been held by exporters of agricultural products, that the great Republic of France, noted throughout the world for her manufactures and arts, has no place for the results of American skill, or the rich yields of American farms. A careful study of the French markets, and a thoughtful observation of the needs and demands constantly growing throughout the entire country, produce the impression that this Republic offers an excellent chance for the live, active American to obtain a good, constant, and remunerative field for his many products.

Certain facts should be borne in mind as of special interest to the exporters of the United States; and these relate not only to France, but to Great Britain and Europe in general:

(1) There is a constant rush of the peasantry from the country to the cities; this depopulation of the rural districts being a cause of great alarm in France, Germany, and Great Britain.

(2) A growing dislike is noticeable among the peasants for agricultural pursuits. The country people are laughed at and regarded with ridicule by their city relatives and neighbors.

(3) The wages offered by the trades and manufacturers are greatly superior to those paid for farm work.

(4) The hours of labor are shorter in the city; and the social advantages, as well as the schools, are better in the towns than in the country.

(5) The most important factors, however, are the low prices received for farm products, the cost of cultivation, and the small return for capital and labor invested in agricultural pursuits.

The above facts show that there is at present a grand opportunity for the mercantile houses of the United States to enter this greatly to be desired market.

One of the serious objections urged hitherto by the few who have attempted to introduce their goods is the reluctance of the French to buy foreign merchandise and the extreme conservatism of the pur-

chasers generally. While this feeling still exists to a certain extent it is being overcome gradually. The people are thrifty and glad to utilize whatever proves to be advantageous and profitable in the end. The progress already made by enterprising American and English exporters conclusively shows what can be done toward entering their goods.

Among the exports that can be advantageously introduced into France are the following:

ANIMALS.

Cattle.—The extensive drought of 1893 was so severe that the number of horned animals was reduced, according to the estimate of the minister of agriculture, one-third below normal supply. As a natural consequence the price of beef is much above the average, and the producers are holding their stock very high. The recent decree against the entering of American cattle, which has greatly aided the French seller, will probably not be allowed to remain long upon the statute books. Then there will be a grand opportunity to ship live cattle to France.

Great care should be taken in selecting the animals; only sound, healthy stock should be shipped, as a poor lot only makes a bad sale and gives the too ready critics a chance to say, "This is a sample of American beeves."

Horses.—The electric street railroad has not yet replaced the horse car in France, therefore horses are almost the only power employed in transporting, excepting steam railroads and boats. The regular demand for horses in the cavalry service requires thousands of these valuable animals every year. The price readily paid for good horses is abnormally high; seldom has the market been so active. The flesh is used very extensively as food, so there is little risk in exporting good, sound horses, for if they are not serviceable for the farm or road they can be utilized in the meat market, where horseflesh commands almost as high a price as beef ordinarily does in the United States.

Sheep.—It is doubtful if at the present time live sheep could be advantageously introduced. A very small but good sheep is extensively raised in France. Mutton is more abundant and cheaper than beef. A certain quantity of English mutton is now sold in Paris, and American sheep will not be long in following it, but the meat must be tender, sweet, and cheap to compete with the chops from Great Britain.

Mules.—These animals are not as popular as donkeys, and the imports are almost nil, the preference being given to horses or donkeys.

ANIMAL PRODUCTS.

Canned meats.—There is hardly a variety or grade of canned meat but it can find a ready sale in France. The French canners look with envious eyes upon the favorable reception of American canned meats in the French market; and the imagination has been drawn upon to picture the unsanitary methods of the canners in the United States.

The reports of persons who have visited large American canning establishments have been so favorable that the truth has been perceived in spite of prejudice. Persons have been sent to the United States to ascertain how Americans canned their meats, with the desire to copy their method.

There is hardly a chance for French canned meats, such as beef, etc., to be a success, not because they do not know how to preserve them properly (for the French are experts in that line), but on account of the high price of the raw materials. It is therefore more advantageous for the butchers to supply the fresh-meat market than the canneries. It would be advisable for the American canners to carefully study the French market, the tastes of the people, as well as the qualities and style of packages desired.

Families rent rooms for the summer at the seaside and watering places for light housekeeping, where fresh meats are dear; consequently the demand for canned meat is always good. Hotels, schools, communities, and the army consume large quantities of cooked meat, which could be replaced by canned meats.

Hams, shoulders, bacon.—It is surprising to note the high prices at which these articles are commonly sold and also the quantity that is offered for sale.

There is a steady demand for English Yorkshire hams. Whole smoked hogs, weighing from 75 to 150 pounds, are exposed for sale during the holidays and fêtes, and the demand for these is growing. Good articles at fair profits or prices can be sold anywhere in France.

Salt pork, sides, mess pork.—These should be imported in much larger quantities than at present. The working classes consider pork preserved in this way a luxury; it is sold in quarter-pound pieces generally at an enormous profit. The exportation of this class of merchandise should be pushed diligently, as its sale would not only benefit the exporter, but be also of service to a certain portion of the population that has great need of meat, and really wants cheap food.

Great care should be taken in the selection of pork before it is packed, whether it is salted, smoked, or canned, to prevent the shipping of any but first-grade meat, free from all disease, because the people frequently eat pork uncooked.

Lard.—This important product is also sold extensively, and the demand is great, but more care should be taken in packing. In samples personally examined by me pieces of foreign matter have been found in lard taken from packages said to come from the United States. It is needless to say that a packer who will resort to such methods not only injures himself in the end, but disgraces and dishonors American exporters. Such actions have done more to diminish trade and degrade American food products than any custom duty or prejudicial report from French sources.

COTTON.

All cotton products are in demand. The numerous mills at work and now commencing, together with the tendency to centralize in large manufacturing towns, and the greatest attention given to the industries in preference to agriculture, will possibly make France a closer rival to Great Britain than ever.

The oleaginous products of the cotton plant are also very salable. The "coupage" of olive oil with cotton-seed oil, the sale of the cotton-seed oil on its own merits can be increased. The oil cakes for fattening cattle are also needed in France. It only requires patience, care, and, above all, strictly honest dealings to greatly increase the importations of these articles into France.

FISH, SALTED AND CANNED.

There is no portion of any land where salt fish is so eagerly bought as in provincial France. The only article that the poor can buy is cod, and that sells at exorbitant prices. Herring, salted and smoked, are dear; mackerel is seldom exposed for sale except when fresh. Salted and smoked salmon, and the innumerable varieties of preserved fish that are annually prepared by the American fisheries can all be successfully sold in France. As there is a demand for these goods, it would require but little effort to secure and hold the French market.

Repeated inquiries have been made at this consulate for the names of reliable houses in the United States that can lobster, salmon, clams, and oysters. Several brands have been shown to parties in France who have been delighted with the goods, thus proving that American canned fish can be introduced successfully into this country.

Lobster is now imported into France from the Cape of Good Hope, the trade being quite brisk. The United States exporters, seeking this trade, should be better represented in France, and should push the introduction of their merchandise more energetically.

CEREALS.

Wheat.—The recent official reports on the growth and harvesting of wheat in France show that an excellent opportunity is offered to grain merchants in the United States to sell their merchandise in this sister Republic. It is only necessary to refer to these reports to find out what can be done in this trade.

Corn.—This staple has already found a market in France, but the present supply comes from Spain, Italy, Hungary, and Roumania; the crop raised in France is comparatively small. This grain is used for fattening poultry and large animals, but as an article of diet for the human family, it is unappreciated. The time will come, however, when the nutritive properties of corn will find favor in France. No serious effort has ever been made to introduce canned sweet corn in a careful

and judicious way. The same patience that was given by Parmentier to bring potatoes into daily use, if applied to Indian corn, would make it as popular an article of diet in France as it is in the United States. The French housewives do not understand how to cook it, and until they are shown how they will not use corn as a vegetable.

Corn meal.—This is retailed at 5 cents a pound, a price which renders it a luxury. This probably militates against its popular use as a porridge or bread.

Flour.—Good brands of a guaranteed quality would sell; they must be excellent and such as the bakers (boulangers) can use to mix with the inferior grades of French wheat and the "pâtissiers" (pie and cake bakers) can employ in the very finest and best of pastry. If certain trade-marks were as well known in France as they are in the United States the preference would undoubtedly be given to the choice American brands.

Buckwheat.—There are no data concerning the importation of this article into France from the United States, or even of an effort having been made to introduce it. Still there is quite a demand for this grain; a small quantity is raised in central France, but the quality is not as good as American buckwheat. It is used as an article of food and for fattening all kinds of animals. The fine flavor of American buckwheat flour would soon cause it to find a place in the French markets. It is certain that a large exporting business could be done in this grain.

Glucose.—The demand for this commodity is growing as the fabrication of liqueurs, fruit jellies, preserves, etc., increases. Much more business could be done in glucose if greater care and perseverance were employed in its introduction.

Starch.—Since the French duties on Indian corn were raised the starch manufactories have suffered. The greater portion of starch is now made from potatoes, which can be grown very cheaply. To compete with the prices ruling in the home market the American makers would have to produce their article at a lower rate than is done at present in the United States.

DAIRY PRODUCTS.

Cheese.—It is quite the fashion lately to find what is called "old English cheese" on hotel and private tables, but a connoisseur will recognize it immediately as an American article coming to France via Great Britain. The taste for this cheese is growing and a large future is promised in this line; preference being given to full cream cheeses of medium size.

Butter.—The taste for unsalted butter is general in France. The excellent dairy products of Normandy, Brittany, and the Vendée would render it hard for Americans to compete with the natives; there are other exports much more practica.. for the dairymen of the United States to deal in.

Condensed milk.—This essential with every good housewife in the United States is almost unknown in the French trade. Some Swiss and English companies have already opened the market to a limited extent. The natural prejudice is being eliminated, and the sales are yearly increasing. In order to see if its introduction were at all practical a careful examination of grocer's stock has been made, which shows that if American condensed milk can be put upon the French market at the same price as brands coming from other countries it will find a large and ready sale, especially if the milk is not sweetened.

FRUIT.

Apples and pears.—France is a fruit-producing country, whose products resemble those of the United States more than those of any other country. Only in off years can there be any expectation of supplying France with apples and pears. The trade is similar to dealings in hay; ordinarily the home production is sufficient to supply the home market, and the prices are low, but there are seasons when both hay and fruit fail; then the wholesaler depends upon foreign supply.

Florida oranges.—The better grades of this fruit should find a good, fair market in France after they have been seen and tasted; because their fine flavor will be appreciated, and it is possible that the "fruitiers" (fruit dealers) will give them the preference over Spanish and Italian varieties that are now exposed for sale upon the market and street stands.

Grapes.—There is no reason why grapes should not be extensively imported into France. With the present rapid and specially adapted facilities of transportation of fruits, and the abundant supply in the United States, they should find a ready sale. Table grapes are rare and high priced after the months of October and November. The demand for this kind of fruit is very great in England, and it should be made so in France. A rare opportunity is offered to place them upon the French market.

Dried apples.—Large quantities of dried apples are now marketed in France, where they are used for a number of purposes, the most important of which is the making of cider. They are steamed before pressing. This dried fruit is also employed in the making of jams and preserves, forming the base of the conserve. Dried pears and plums are also in demand.

Canned fruit.—This trade is at present limited, but after my having personally shown American products, and compared them with the French, the former have always been given the preference. Canned Bartlett pears, peaches, apricots, plums, and strawberries are greatly in demand, and probably all kinds of canned fruit from the United States would soon find an excellent market in France.

VEGETABLES.

France has been looked upon as the home of all kinds of vegetables; she has certainly shipped enormous quantities of canned peas and beans to America, but there is an opportunity to reciprocate with canned tomatoes, asparagus, and corn. As soon as the delicious qualities of this latter vegetable are known the demand will be great. A little study of French tastes will show how much can be done in this line.

LIQUORS.

The demand for American wines, except for the "coupage" with French wines, is not very strong.

GRASS SEEDS.

Nearly every kind of grass seeds is salable in France; certain sections of the country are now almost entirely dependent on America for this class of seed. The majority of this trade is in the hands of English commission houses, who buy in the United States and ship the seeds from Great Britain. Greater care should be taken in selecting and sorting the seed, as complaints have been made that it was mixed; there are other countries anxious to obtain the market, and if it is taken away from America it is her own fault.

SUNDRIES.

Pineapples.—This luscious fruit is almost unknown in France, and the price is out of all proportion, but there is sale for them.

Raisins.—Specimens of California raisins have been exhibited in France and they are preferred to the Spanish fruit; it is strange that more are not sold. A small raisin is extensively used for making wine.

Oysters.—This fish is a veritable luxury; if the small kinds were well packed and brought over in the shell during the cold weather the exporters would realize a good profit on their exports.

O

NOTE ON THE METRIC SYSTEM.

The following is mostly compiled from publications of the Geodetic and Coast Survey of the United States.

The Constitution of the United States provides that Congress "shall fix the standard of weights and measures." The customary weights and measures of the country are derived from those which were lawful during colonial times, and are almost entirely of English origin. Much interest was shown on the subject in the early days of the Republic by the most eminent men of that time, especially by Washington and Jefferson, who recommended action by Congress in that direction. Up to 1828 there had been no legislation on the subject, but an act was passed that year that a certain piece of brass, now known as the troy pound, should constitute the standard by means of which the coinage of the United States should be regulated. In 1836 an act was passed which provided that a full set or copy of the standards of weights and measures, as provided by the Treasury Department for the use of the customs service, should be prepared in the office of the Superintendent of Weights and Measures and delivered to the governor of each State in the Union. This was done, and went far toward procuring uniformity in the standards. The primary yard and pound adopted by the Executive Departments of the Government soon became practically the standards of the whole country.

The metric system is based on the ten-millionth part of a quadrant of a meridian circle measured by calculation from the north pole to the equator, as explained by a diagram of the system printed on the back of this report. The superior character of this system, both for its simplicity and scientific precision, was recognized at an early day by those who were interested in the subject of weights and measures in this country, and, after much agitation on the subject, Congress, in July, 1866, passed the important act by which the metric system of weights and measures is authorized and made lawful throughout the United States; and about the same time, to further the practical use of this system, Congress passed a joint resolution authorizing the Secretary of the Treasury to distribute to each State of the Union a set of metric standards of weights and measures, which was done.

The metric system of weights and measures, standards for which have been constructed in accordance with the highest requirements of metrological science, has received the approval of the civilized world, and Congress has for many years authorized and sustained the participation on the part of the United States Government in all the operations which the International Bureau of Weights and Measures advocated.

Our present system of weights and measures has for its sole recommendation that it has been in common use for many years. It is irrational in theory, irksome in practice, and has been condemned by all who have had practice in the use of weights and measures. Furthermore, it has never been authorized or made lawful by act of Congress, and is almost without authorization in the history of Congressional legislation.

METRIC

SYSTEM.

ELEMENTS OF THE SYSTEM.

Length.	Surface.	Capacity.	Weight.	Notation.
			Metric ton.	1,000,000
			Quintal.	100,000
Myriameter.			Myriagram.	10,000
Kilometer.		Kiloliter.	Kilogram.	1,000
Hectometer.	Hectare.	Hectoliter.	Hectogram.	100
Decameter.	Decare.	Decaliter.	Decagram.	10
METER.	ARE.	LITER	GRAM.	1
Decimeter.		Deciliter.	Decigram.	0.1
Centimeter.	Centiare.	Centiliter.	Centigram.	0.01
Millimeter.		Milliliter.	Milligram.	0.001

EQUIVALENTS OF CUSTOMARY AND METRIC WEIGHTS AND MEASURES.

1 kilometer	=	0.62137 mile.	1 mile	=	1.60935 kilometers.
1 meter	=	3.28083 feet.	1 yard	=	0.914402 meter.
1 centimeter	=	0.3937 inch.	1 foot	=	0.304801 meter.
1 hectare	=	2.471 acres.	1 inch	=	25.4001 millimeters.
1 are	=	119.6 square yards.	1 square mile	=	2.59 square kilometers.
1 metric ton	=	2,204.62 pounds.	1 acre	=	0.4047 hectare.
1 kilogram	=	2.20462 pounds.	1 square foot	=	9.29 square decimeters.
1 gram	=	15.43236 grains.	1 pound	=	0.45359 kilogram.
1 hectoliter	=	2 8377 bushels.	1 grain	=	64.7989 milligrams.
1 liter	=	1.0567 quarts.	1 bushel	=	0.35239 hectoliter.
1 centiliter	=	0.338 fluid ounce.	1 gallon	=	3.78543 liters.
1 stere	=	1.308 cubic yards.	1 cubic foot	=	0.02832 cubic meter.

DIFFERENCE BETWEEN UNITED STATES AND BRITISH MEASURES.

1 Imperial bushel equals 2,218.192 cubic inches.
1 Winchester bushel (used in United States) equals 2,150.42 cubic inches.
1 Imperial gallon equals 277.274 cubic inches.
1 wine gallon (as used in United States) equals 231 cubic inches.

RULES.

1. To reduce Imperial bushels to Winchester bushels, multiply the number of Imperial bushels by 1.03152.
2. To reduce Winchester bushels to Imperial bushels, multiply the number of Winchester bushels by 0.969447.
3. To reduce Imperial gallons to United States wine gallons, multiply the number of Imperial gallons by 1.20032.
4. To reduce United States wine gallons to Imperial gallons, multiply the number of wine gallons by 0.833111.